A Community Study on Proclivity to Elder Abuse in Hong Kong

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ABSTRACT

The present study attempted to provide preliminary estimates on proclivity to elder abuse and to validate the two theory on elder abuse namely the hypothesis of intergenerational transmission of violence and the ecological theory in local settings. A total of 464 (225 males and 239 females) participants completed questionnaires on their attitudes toward elderly people, modernity and filial piety, as well as their childhood experience of abuse and support and their current proclivity to abuse and support. Results indicate that proclivity to verbal abuse was the most common among the three types of abuse, account for 61.9% in the present sample, while proclivity to physical and social abuse were less common, accounted for 7.8% and 5.4% respectively. Almost all (98.7%) of the participants suggest that they would support an elder person even when there is no social constrains. Participants' negative attitudes toward elderly people and modernity, as well as a high level of childhood experience of abuse consistently emerged as the three most salient predictors for their current endorsement of proclivity to abuse while proclivity to support was best predicted by participants' childhood experience of support. Participants' childhood experience of support was found to interact with their childhood of abuse in predicting proclivity to abuse, being highest among those with high level of childhood experience of abuse but a low level of childhood experience of support.

摘要

本研究旨在提供有關虐老偏向性的初部預算並確定兩代間的暴力傳遞（Intergenerational Transmission of Violence）及生態理論（Ecological Theory）是否適用於解釋虐老偏向性。本研究共訪問了四百六十四人（二百二十五男、二百三十九女），研究結果顯示語言暴力最為普遍（61.9%），其次為身體上的暴力（7.8%）和社會性暴力（5.4%）。絕大部份（98.7%）的被訪者均表示，即使沒有社會責任和外在壓力，仍會供養家中的長者。受訪者對長者及現代性的負面態度，以及童年的受虐經驗均能有效地估計受訪者的虐老偏向性，而受訪者童年的受支持經驗亦能有效地估計他們供養家中長者的偏向性。受訪者的童年受虐經驗及受支持經驗之間的相互作用亦影響他們的虐老偏向性，虐老偏向性普遍在高童年受虐經驗及低受支持經驗的情況下最為高。

CHAPTER 1: INTRODUCTION

Elder abuse and neglect is the latest development in the field of domestic violence. Though elder mistreatment has emerged as a new facet of familial violence only in these few decades, it has gained considerable attention from researchers.

Definitions of Elder abuse

With the increasing investigations on elder mistreatment come various definitional, methodological and theoretical problems, among which the definitional debate proved itself a major impediment to further investigation in elder mistreatment.

Definitions of elder abuse vary. To name but a few: Lau and Kosberg (1979) studied physical, psychological material abuse and violation of rights; Block and Sinnott (1979) included medical abuse on top of that in their study; Hickey and Douglass (1981) examined active and passive neglect, verbal and emotional abuse and physical abuse; Chen (1981) investigated physical, psychological, sexual and social/ environmental abuse; Sengstock and Liang (1982) considered physical, psychological, financial abuse as well as physical and psychological neglect. Hudson and Johnson (1987), remarked on the nature of the definitional debates, "physical and psychological mistreatment are consistently included, whereas inclusion of separate classifications of neglect (active and passive), financial or material abuse, self-neglect, violation of rights, sexual abuse and medical abuse, vary from study to study."

The definitional debate is further complicated when investigators classify abuse differently, as Hudson and Johnson noted while Lau and Kosberg (1979) categorized "withholding personal care" in "physical abuse", Sengstock and Liang (1982) put it under "psychological neglect".

These differences in definitions of elder abuse make it impossible to compare research findings across studies and hinder the development in the area. As Johnson (1986) points out, "It is impossible to evaluate or build knowledge in a field in the absence of a common definitional frame of reference … until we can adopt a standard definition of elder abuse, casual theory cannot be explored."

Finally, fortunately, there is some consensus on what elder abuse means. Pillemer and Finkelhor (1988), derived an operational definitions for elder abuse by reviewing all definitions used in previous studies and identifying types of maltreatment that appear to have consensus among those studies. These types of maltreatment include physical abuse, psychological abuse and neglect. Physical abuse refers to the physical assault against an elder and was defined as at least one act of physical violence against the respondent since he or she had turned 62 years of age; Psychological abuse refers to behaviors that were termed chronic verbal aggression, and was defined as the elderly person being insulted, sworn at or threatened at least 10 or more times in the preceding year; Neglect refers to the deprivation of assistance that the elderly person needed for important activities of daily living.

Pillemer and Finkelor's definitions were accepted as the standard definitions (McCreadie, 1996) and were adapted in other studies (Pittaway & Westhues, 1993).

Theories for Elder Mistreatment

Another controversial issue in the study of elder abuse is related to various theories generated from various perspectives. Prominent models include the intra-individual dynamics, social exchange theory, symbolic interactionism, intergenerational transmission of violence and the ecological theory. We would consider each of these theories as follows:

Intra-individual dynamics. Studies on intra-individual dynamics emphasize the pathological characteristics of the abuser as the primary cause of abuse. Since a high proportion of abuser is having learning difficulties, mentally ill, or have long history of alcohol and substance abuse, it is suggested that these features, when combined with the care of a disabled older person, may result in abuse. Pillemer (1986) has focused on physical abuse of the elders and find that abusive caretakers are more likely to have mental and emotional problems, and have problems in abusing alcohol as compared to their non-abusive counterparts. They are also more likely to have been hospitalized for psychiatric reasons.

Social Exchange theory. The social exchange theory focuses on the flow of benefits through social interaction. The notion is that all daily interactions are purposeful behaviors and people all behave in ways that produce beneficial events. Benefits obtained through social process are contingent upon benefits provided in exchange, which means whether one provides some benefits to another person depends on whether he or she receives benefits from that particular person (Emerson, 1981). It assumes that any individual would try to obtain maximum benefits and engage in interactions that are least costly. When confronting an unfair exchange, one may either abandon the interaction or seek ways to balance the exchange.

The theory has been used more frequently to illustrate how the risk factor, dependency, affects the intergenerational relationships. The theory originally proposes that a partner who is less dependent on the social exchange relationship will enjoy a power advantage, which can then be utilized to effect compliance from the exchange partner (Dowd, 1975). If this notion stands, it is the abused elder's dependency on the abuser, which prompt the abuser to compensate his or her loss through the use of violence.

Nonetheless, there are researchers that look at the issue in a different light. There is the suggestion that the abuser, rather than the elderly victim, is the one who is dependent on the relationship. While the abuser is dependent on the elderly person, the over-benefits they receive may contribute to feelings of inadequacy and would be perceived as a loss rather than a gain (Stoller, 1985; cited in McCulloch, 1990). This latter interpretation of the theory has been demonstrated in cases of wife abuse, where husbands have relatively lower marital power due to their lower level of education and lower income level as compared to their wives (Babaock et al., 1993) and in cases of elder abuse, where abused elders were not found to be more ill or impaired as compared to the elders not experiencing abuse, but the abusers are more likely to be dependent on their elderly victims for financial assistance, household repairs, transportation, and housing (Pillemer, 1985; Pillemer, 1986). It is suggested that as the victims perceived themselves as on the losing end of the relationship, they may feel being trapped by a sense of family obligation and therefore do not leave the situation. Experiencing the feeling of powerlessness, one may untangle this feeling by means of violence (Pillemer, 1985).

There are also findings suggesting that dependence in either way can predict abuse. Focusing on emotional dependence, Yan and Tang (2001) found that abused elderly, as compared to their intact counterparts, are more dependent on the abuser emotionally and they perceived their caregivers as being more emotionally dependent on them. Emotional dependence was significant in predicting verbal and physical abuse.

Symbolic Interactionism. Symbolic interactionism, relating to the social exchange theory, also holds the assumption of reciprocity (Clarke, 1997). The notion is that, when entering interactive situations, persons define the situation by applying

names to themselves, to the other participants in the interaction, and to any particular features of the situation. The resulting definitions are then used to organize one's own behavior in the situation. Thus, behavior is the product of a role-making process, initiated by expectations invoked in the process of defining situations (Stryker, 1981).

For symbolic interactionists, appraisal of one-self and interpretation of one's inner feelings are the central influences on behavior. There is evidence that victims in domestic violence perceive their situation as characterized by more violence; greater power inequality, greater dependency and limited access to supportive others as compared to those that are not abused (Forte et al., 1996). The theory is superior to the others in that it emphasizes the persons' perception and interpretation of the situation. Nonetheless, it has also been criticized for many of the variables implied by the model are relatively inaccessible to empirical testing and precise measurement for the cognitive process and symbolic meaning proved almost impossible (Phillips, 1986).

Intergenerational Transmission of Violence. The intergenerational transmission of violence hypothesis stems from the social learning theory's assumption that behavior can be acquired through observing others. It is suggested that domestic violence can be learned and passed from one generation to the next (Quinn & Tomita, 1986). In the light of this, abusive adult offspring may be victims of child abuse who learned violence as means to resolve conflicts.

There is evidence that husband-to-wife violence can be transmitted from one generation to the next, children who witness their mothers being battered do in fact become batterers (Straus et al., 1980). However, research applying the intergenerational transmission of violence hypothesis on elder abuse shows mixed results. Study suggests that children who have poor relationship with parent since

childhood are prone to be abusive toward their elderly parent (Homer, 1984). Other studies suggest that the hypothesis have little predictive power for elder abuse as compared to other forms of domestic violence (Korbin, Anetzberger & Austin, 1995; Pillemer, 1986). Still other findings suggest that abusive offspring generally grown up in non-abusive home (Anetzberger, 1987), which breaches the notion that abusive persons were victims of child abuse.

Study reveals that for the hypothesis to survive, certain conditions have to be met. Exposure to family-of-origin aggression would have most profound consequence when one experiences and witnesses the aggression, at the same time, acknowledges the negative consequence of aggression and identifies with the abuser (MacEwen, 1994). Moreover, individuals exposed to harsh parenting during their childhood should be more likely to engage in domestic violence when harsh treatments are related to a general antisocial orientation (Simons et al., 1995). These findings may explain why the hypothesis lead to mixed result in different studies. While the family of origin violence may not always arise from the situations mentioned above, one should not expect that exposure to such violence would always lead to violent behavior.

The hypothesis may be particularly relate to the phenomenon of elder abuse in Hong Kong given that wife beating has been accepted as part of the traditional Chinese cultural norm (Cheung et al, 1997). The same applies to physical punishment of younger children. According to the Chinese saying, "sympathetic mothers breeds losers and respectful sons grow under a father's stick", beating a younger children is regarded as a mean to train him into a valuable person.

The Ecological Theory. Similar to the social learning theory, the ecological theory links family violence to the broader social order. It was suggested that a

person's environment can be understood as a series of setting, each nesting within the next broader level (Bersani & Chen, 1988). For instance, it has been argued that in a full understanding of intrafamilial violence, analysis should proceed at four levels, ranging form the family history to the abused child to the culture of the society (Belsky, 1980). In fact a belief or value system that legitimates violence again children has been identified as one of the most significant precursors of child abuse (Garbarino, 1977). According to the ecological theory, social change alters traditional family structure, dynamics, and values and destroys the social support network in which the family is embedded. New and additional stresses are consequently placed on individuals and the families. In view of this, social change brought about by industrialization, modernization and westernization should have an impact on family violence. Previous studies have identified the direct effect of social change in increasing the frequency of wife beating (Erchak, 1984; Erlich, 1966).

Having been a British colony for the last 100 years, social change brought about by westernization is particularly evident in Hong Kong. There is evidence that compared to the elderly people who are age cohorts of their grandparents, college students demonstrate a significantly lower level of filial piety (Yeung et al., 2002). With the decline in filial piety and exposure to a diversity of value systems in addition to traditional Chinese values, the younger generation in contemporary Chinese societies may prefer individual development instead of fulfilling their prescribed family obligations. The dissimilar expectations between the older and younger generations may amplify intergenerational conflict and thus give rise to instances of elder abuse.

Risk Factors for Elder Mistreatment

When talking about risk factors for elder abuse, the focus of attention has always been on the victims. A classic victim in early research is a female in the advanced old age, who is widowed and lives at home with an adult child, is physically and mentally impaired, immobile, socially isolated, dependent on caregiver as a result of physical or mental incapacity, and have negative personality traits (Chen et al., 1981; Eastman, 1984; Giordano & Giordano, 1984; Anetzeberger, 1987; Pritchard, 1992; Bennett and Kingston, 1993; Kivela, 1995; Pitsiou-Darrough & Spinellis; 1995; Harris, 1996; Lash et al., 1997).

Recently, however, the spotlight broadened to the abuser. Researchers acknowledge that characteristics of the abuser are equally, if not more, important. (Baron & Welty, 1996). Among these abusers' characteristics are substance abuse, psychological impairment, life stress and dependence on the victim.

Research findings reveal that abusers are more likely to be dependent on alcohol. (Homer & Gilleard, 1990; Chance, 1993). They are also more likely to enjoy drinking and to get drunk (Anetzberger et al., 1987, 1994). Furthermore, cases involving substance abuse were more likely to involve physical and emotional abuse and were evaluated by case workers as having a high potential risk for future abuse (Hwalek et al., 1996). A study in South Africa suggest that approximately 25 % of the abusers are alcoholics and in almost 50% of cases of elder abuse in residential settings, the abuser used alcohol before acts of violence (Eckley & Vilakazi, 1995).

Psychological impairment is another risk factor. There is evidence that abusers generally have a higher incidence of having been arrested, hospitalized for a psychiatric condition, or involved in other violent behavior (Kosberg, 1998; Pillemer, 1985; Pillemer, 1986; Pillemer & Finkelhor, 1989).

Other researchers argue that life stress is another important risk factor. It has been suggested that individuals who are frequently assigned the responsibility to care for a frail elder is always the unemployed and suffer high level of stress and even depression (Eckley & Vilakazi, 1995). In a study on the role of environmental factors, both the abuser and the abused perceive themselves as the victims of situational stresses (Eckley, 1991). Other research suggest that life crisis such as the death of a significant others of the abuser, is also an important determinant (Pillemer, 1985; Pillemer & Finkelhor, 1989).

Another risk factor is abuser's dependency on victim. It has been suggested that abusers are dependent on victims in terms of financial assistance, household repairs, transportation and housing (Pillemer, 1985; Pillemer, 1986; Pillemer & Finkelhor, 1989). They are dependent on victim interpersonally and emotionally (Murphy et al., 1994).

Prevalence of Elder Mistreatment

We all agree that elder abuse can have detrimental impact on the elder victims, both in terms of physical health problems that resulted and the psychological sufferings they encounter. However, to what extend is elder abuse a social problem? Results from some of the prevalence studies may shed light on this question.

In a large-scale prevalence study in Boston, Pillemer and Finkelhor (1988) measured physical abuse, verbal abuse and neglect by asking elderly directly whether they had experienced any of these behaviors since they turned 65 years old. The survey found that 63 persons out of 2020, which accounts for 3.2% in the sample, had been abused in at least one of the ways defined in the study. In Canada, a similar prevalence study was conducted and found 1.1% for verbal abuse, 0.5% for physical

abuse, 2.5% for material abuse, and 0.4% for neglect (Podnieks, 1990). In Britain, using somewhat broader definitions, a prevalence of 5.4% for verbal abuse, 1.5% for physical abuse and 1.5% for financial abuse was (Bennett & Kingston, 1993).

A much higher rate of abuse was recorded in other studies. Pittaway and Westhues (1993) interviewed elder persons in contact with health and social service agencies were interviewed and reported a prevalence rate of 14.3% for physical abuse, 14% for verbal abuse, 20% for financial abuse, and 14% for neglect in a sample of 385 respondents aged 55 or above from London and Ontario. In Pitsiou-Darrough and Spinellis's study in Greece (1995), a total of 117 elder persons from a sample of 757 suffered some types of abuse in the past year and 109 respondents knew at least one case of elder abuse.

While most prevalence studies reply on reports form elder victims. There are researchers who approach the problem form a different perspective. Instead of interviewing elder victims, Homer (1984) turn to the caregivers, among the seventy-one carer-patient pairs are interviewed in hospitals offering in-patient respite care on geriatric wards, forty-five percent of carers admit to some forms of abuse among which 27% admit to one type of mistreatment, 14% to two types of mistreatment and 3% to all three types of mistreatment. Using indirect estimates, Kurrle et al. (1992) reviewed the medical records of a geriatric and rehabilitation service for a 12 months period and found a rate of 4.6% occurrence rate in Australia with physical and psychological abuse being the most common.

Although studies have held that the percentage of elders who are abused in the population rages between 1 and 20 percent, no accurate statistics have been established because of a lack of uniformity in states reporting laws and record

keeping, as well as definitional, sampling, and methodological differences among research (Hudson, 1986).

As for the situation in Hong Kong, within the first 9 months of the year 1999, a total of 97 cases involving abuse of elderly persona were reported to the Social Welfare Department, in which 35 % involved neglect of elders, another 35 % involved physical assault, and another 28 % involved psychological aggression. However, this estimate has been criticized as being "tip of an iceberg" for most elderly abuse victims feel reluctant to report their sufferings ("Ten percent," 1999).

A local survey conducted recently suggests that the prevalence of elderly abuse is much higher than the cases reported to the social welfare department. A total of 500 elder persons were interviewed on the telephone and among them 18.6 % suffered medical abuse and 11.2% suffered verbal abuse ("ninety seven cases," 1999).

A more recent local survey suggested a somewhat higher prevalence rate. Among the 355 elders interviewed, 20.8% report being verbally abused, 2.0% report being physically abused and 3.9% report being socially abuse in the past year (Yan & Tang, 2001).

The Situation in Hong Kong

The aging population. Improved longevity due to advances in medical care, better nutrition together with lowered fertility have lead Hong Kong into an aging population. In Mid-2000, 15% of the total population were found to be aged 60 and above making it 1019200 in real numbers. The claim that the aging population is primarily a female one due to their longer life expectancy is also demonstrated here. Among the 1019200 elderly population, 537000 were female and only 482000 were male.

Filial Piety. The Confucian filial piety prescribes how children should behave towards their parents, living or dead, as well as towards their ancestors. Specifically, it demand that one should provide for the material and mental well-being of one's aged parents, perform ceremonial duties of ancestral worship, take care to avoid harm to one's body, ensure the continuity of the family line, and in general conduct oneself so as to bring honor and avoid disgrace to the family name (Ho, 1997). Filial piety has served as the guiding principle governing intergenerational socialization for centuries, and yet, being exposed to the alternative western model of the family, the dynamics of Chinese family continue to change (Goodwin & Tang, 1997). There is evidence that traditional filial piety is on the decline (Ho et al., 1989; Ho, 1993, cited in Ho 1997). This decline signifies a radical change in the Chinese definition of intergenerational relationship and an altered authority relationship between generations (Ho, 1997). Under these circumstances, discrepancies exist between the older generation's belief and the younger generation's conduct. As is evident, the expectations of the elderly are often left unmet, leaving them in great disappointment. Yeung (1989) reported that elderly people in Hong Kong held attitudes towards filial piety that were negatively correlated with measures of the medical care, as well as social and psychological support they received. The author thus deduces that those holding stronger filial attitudes tended to have higher expectation of support from their family members, and would have experience more disappointment when their expectations were not met.

Practical Issues. It has been argued that retirement planning has never been top of the agenda in Hong Kong economy (Granitsas, 2000). The introduction of Mandatory Provident Fund has been a great leap towards better retirement planning. However, the move is too slow for the elder generation to benefit from the scheme.

Consequently, most elderly retired do not received pension fund and their only way to maintain their living was to rely on their savings or the support of their children if available (Chow & Chi, 1997). In a more recent survey carried out by the Hong Kong Society for the Aged in 1994, a vast majority of the respondent (64.3 %) was dependent on their family to support their living, while 26 % rely on government subsidies. Elder person's dependence may considered a burden to their offspring and thus make them the candidates for elderly abuses.

Furthermore, the redevelopment of old district in Hong Kong has forced old people to move into new towns and have their social ties drastically reduced. This may in turns increases their emotional and psychological dependence on their grown up children. Studies indicates that elderly suicide rate in new towns has increased considerably these years, suggesting a lack of support system among these elderly (Chi et al., 1997; Yip & Tan, 1998). Even worse is that the elderly suicide in Hong Kong is approximately 4 to 5 times the average as compared to the rate in other cities in Canada or the states (Yip & Tan, 1998).

The Present Study

Most studies on elder mistreatment rely on victims' reports. While these reports may prove the most direct way to estimate the prevalence and to study the impact of abuse, the approach is not without flaws. Solely relying on victims' reports, one fails to look any further than the victims' perspective and valuable information on the abusers' profile may be missed. The problem may even extend to the study of prevalence rate when victims are unwilling to report violence (Jones, 2000). The problem of victim survey may be particular obvious in Hong Kong when most people hold that "every family has their own difficulties". Given the shame in reporting

internal family discord to others, elderly victims may be reluctant to provide accurate reports. Provided the shortcomings in using victims' report, in studying the prevalence of elder abuse and it's limitation in establishing abusers' profile, the present study attempt to approach the problem from the perspective of the abusers.

In studying abusers' profile, the ideal way maybe selecting a sample of abusers and compared them to non-abusers with regard to the variables of interest. However, finding representative sample of abusers is virtually impossible because most of the elder abuse cases were unreported. Consequently, one may attempt to identify abusers or potential abusers in the community. In assessing the future likelihood of committing a crime, proclivity estimates, in which participants indicate their likelihood to abuse an elder person given that they could get away with it, is often employed (Malamuth, 1989). Another way is the self-report measures of previous aggression, in which participants report their experiences of abusing an elder person. As is evident, both measures have their limitations. While the former does not accurately detect the abuser but only determines one's likelihood to commit elder abuse given no punishment would follow, the latter suffers the flaws that the real abuser may not be willing to provide accurate reports given the perceptivity of the topic. And yet, in spite of their limitations, the two measures are generally found to be correlated with each others and with external measures, as is the case in study of rapes (Malamuth, 1989). Therefore, the validity of using proclivity estimates as an indicator for elder abuse is partly justified. For the present study, proclivity would be used. Following the standard definitions derived by Pillemer and Finkelhor (1986), the present study would focus on verbal, physical and social abuse of female elderly in local residential setting. Although previous studies indicate that financial exploitation is also a prevalent form of abuse (Beck & Phillips; 1984; Gordon, 1987; Gordon;

1992; Spencer, 1995), author of the present paper cast serious doubts whether this is the situation of Hong Kong, as a vast majority of the elderly people do not receive pension fund and are thus dependent on their grown up children (Chow & Chi, 1997; Hong Kong Society for the Aged, 1994).

Proclivity estimates. It is the goal of the present study to establish estimates of proclivity to elder abuse in Hong Kong. Although proclivity does not reflect the real estimates of the prevalence of elder abuse, it definitely sheds light on the problem.

Risk factors for elder abuse. Previous studies indicate the abusers' characteristics and victims' characteristics are equally important in studying elder abuse. While the characteristic of an abused Chinese elderly has been explored elsewhere (Yan & Tang, 2001), the present study would focus on the profile of a potential abuser and try to unearth participants' demographic characteristics related to their proclivity to abuse.

Theories on elder abuse. Following the above discussion on elder abuse theories, it appears that the hypothesis of intergenerational transmission of violence and the ecological theory are particularly applicable in the study of elder abuse in our society, the present study will attempt to validate these two theories in the local setting. *(1)Intergenerational transmission of violence.* While wife and child beating has been accepted as part of the cultural norm in Hong Kong (Cheung et al., 1997), it seems reasonable to assume that both would be prevalent in the older generation. Being exposed to familial aggression, would the younger generation grow up as batterers themselves? The author would investigate the extend to which an individual's experience of familial violence affects the violent behavior he or she displayed toward an elder person. It was hypothesized that participants' childhood experience of violence would have an impact on their current proclivity estimates in

general and that particular forms of childhood experience of violence would predict proclivity to parallel forms of abuse. *(2)The ecological theory.* Also of interest is the extend to which an individual's attitudes toward elderly, as well as their inclination towards modernity and filial piety, altered by the rapid social changes, would affect their proclivity to abuse. It was hypothesized that participants holding more negative attitudes toward elderly, more conservative views on modernity and filial piety would endorse higher level of proclivity to abuse.

CHAPTER 2: METHOD

Participants

A total of 464 participants (225 males and 239 females) participated in the present study. Convenience sampling procedure was used. One hundred and eighty-six college students from the Chinese University of Hong Kong, who participated in the present study in part to fulfill their course requirements, were individually interviewed. Two hundred and seventy-eight participants were also sampled from the community through snowballing, where members of community centers and various professional organizations were contacted by mail. Participants' age ranged from 18 to 70 with a mean of 28.30 and standard deviation of 11.01. Concerning education, most of the participants attained secondary level or above (93.5%). More than half of the participants were single (69.8%) and near one third of them were married (28.7%) at the time of the study. Approximately 40% of the participants were students, the others were working as clerical staff (22.4%), professionals (11.0%), managers or executives (5.4%), and blue collars (6.9%). Majority of the participants was living with their parents (67.7%) or siblings (55.4%) at the time of the study. Participants' household size ranged from 0 (living alone) to 10 (living with 10 individuals) with a mean of 3.91 and standard deviation of 1.79. Participants' parents' age ranged from 39 to 90 with a mean of 57.63 and standard deviation of 11.73.

Significant differences were observed between the two genders in their age (χ^2=23.42, p<.001), education level (χ^2=28.60, p<.001), marital status (χ^2=20.01, p<.001), occupation, (χ^2=35.56, p<.001), living arrangements (χ^2 ranged from 5.02 to 19.96, p<.05) and parents' age (t=-3.15, p<.005). In general, male participants tended to be youner, attained higher level of education, were more likely to be single and lived with their parents, and have younger parents as compared to female participants.

Table 1a. Demographics of Participants (N=464)

		Male N = 225	Female N = 239	Total N = 464	Gender difference in χ^2
Age	20 or below	83 (36.9%)	70 (29.3%)	153 (33.0%)	23.416***
	21-30	95 (42.2%)	77 (32.2%)	172 (37.1%)	
	31-40	25 (11.1%)	32 (13.4%)	57 (12.3%)	
	41-50	16 (7.1%)	48 (20.1%)	64 (13.8%)	
	51-60	3 (1.3%)	10 (4.2%)	13 (2.8%)	
	61 or above	3 (1.3%)	2 (0.8%)	5 (1.1%)	
Gender	Male	225 (100%)	-	225 (48.5%)	-
	Female	-	239 (100%)	239 (51.5%)	
Sample	College	108 (48.0%)	78 (32.6%)	186 (40.1%)	11.391**
	Community	117 (52.0%)	161 (67.4%)	278 (59.9%)	
Family income	8000 or below	13 (5.8%)	22 (9.2%)	35 (7.5%)	3.831
	8000-15000	49 (21.8%)	58 (24.3%)	107 (23.1%)	
	15001-20000	43 (19.1%)	51 (21.3%)	94 (20.3%)	
	20001-30000	46 (20.4%)	45 (18.8%)	91 (19.6%)	
	30001-40000	36 (16.0%)	32 (13.4%)	68 (14.7%)	
	40000 or above	35 (15.6%)	30 (12.6%)	65 (14.0%)	
	Missing	3 (1.3%)	1 (0.4%)	4 (0.9%)	
Education level	Primary or below	8 (3.6%)	22 (9.2%)	30 (6.5%)	28.600***
	Junior secondary	11 (4.9%)	39 (16.3%)	50 (10.8%)	
	Senior secondary	55 (24.4%)	66 (27.6%)	121 (26.1%)	
	Degree / Diploma or above	151 (67.1%)	112 (46.9%)	263 (56.7%)	
Martial Status	Single	179 (79.6%)	145 (60.7%)	324 (69.8%)	20.056***
	Married	44 (19.6%)	89 (37.2%)	133 (28.7%)	
	Separated or Divorced	2 (0.9%)	5 (2.1%)	7 (1.5%)	
Occupation	Students	108 (48.0%)	78 (32.6%)	186 (40.1%)	35.557***
	Managerial / Executives	17 (7.6%)	8 (3.3%)	25 (5.4%)	
	Professionals	30 (13.3%)	21 (8.8%)	51 (11.0%)	
	Clerical staff	43 (19.1%)	61 (25.5%)	104 (22.4%)	
	Blue collars	14 (6.2%)	18 (7.5%)	32 (6.9%)	
	Others	13 (5.8%)	51 (21.3%)	64 (13.8%)	
	Missing	-	2 (0.8%)	2 (0.4%)	
Living arrangement	Living with parent	173 (76.9%)	141 (59.0%)	314 (67.7%)	16.961***
	Living with grandparent	15 (6.7%)	19 (7.9%)	34 (7.3%)	0.281
	Living with spouse	31 (13.8%)	52 (21.8%)	83 (17.9%)	5.024*
	Living with children	32 (14.2%)	68 (28.5%)	100 (21.6%)	13.880***
	Living with siblings	144 (64.0%)	113 (47.3%)	257 (55.4%)	13.111***
	Others	3 (1.3%)	8 (3.3%)	11 (2.4%)	2.031

Note: *p<.05; **p<.01; ***p<.001

The college sample. A total of 186 college students participated in the present study (108 males and 78 females). Participants' age ranged from 18 to 23 with a mean of 19.84 and standard deviation of 1.00. Majority of the participants was in their first year at the time of the study (46.8%), and most of them came from the Faculty of Social Science (41.4%).

The community sample. A total of 278 participants from the community participated in the present study (117 males and 161 females). Participants' age ranged from 18 to 70 with a mean of 33.96 and standard deviation of 11.04. Majority of the participants was either single (49.6%) or married (47.8%) at the time of the study and only 2.6% was separated or divorced. Most participants attained secondary level or above (89.2%). Nine percent of the participants were working at the managerial or executive level, 18.3% professionals, 37.4% clerical staff, and 11.5% blue collars. Household size of participants ranged from 1 to 11 with a mean of 4.75 and standard deviation of 2.12. Most participants were living with their parents at the time of the study (49.3%). Participants' parents' age ranged from 39 to 90 with a mean of 63.68 and standard deviation of 11.69.

Significant differences were observed between the two samples in terms of their age (χ^2=248.49, p<.001), gender (χ^2=11.39, p<.005), education level (χ^2=237.26, p<.001), marital status (χ^2=134.14, p<.001), household size (t=2.442, p<.05), and their parents' age (t=-14.24, p<.001). In general, participants from the college sample tended to be younger, consisted of more males, attained higher level of education, tended more likely to be single and more likely to be living with their parents as compared to participants from the community sample. Since there were considerable differences between the two groups, additional analysis were conducted independently for the two samples for all subsequent statistical analysis.

Table 1b. Demographics of Participants - College Sample (N = 186)

		Male N = 108	Female N=78	Total N = 186	Gender difference in χ^2
Age	20 or below	78 (72.2%)	57 (73.1%)	135 (72.6%)	0.017
	21-30	30 (27.8%)	21 (26.9%)	51 (27.4%)	
	31-40	-	-	-	
	41-50	-	-	-	
	51-60	-	-	-	
	61 or above	-	-	-	
Gender	Male	108 (100%)	-	108 (58.1%)	-
	Female	-	78 (100%)	78 (41.9%)	
Year	First year	55 (50.9%)	32 (41.0%)	87(46.8%)	4.356
	Second year	29 (26.9%)	31 (39.7%)	60 (32.3%)	
	Third year	22 (20.4%)	13 (16.7%)	35 (18.8%)	
	Forth year or above	1 (0.9%)	2 (2.6%)	3 (1.6%)	
	Missing	1 (0.9%)	-	1 (0.5%)	
Faculty	Arts	6 (5.6%)	7 (9.0%)	13 (7.0%)	23.331**
	Business	26 (24.1%)	8 (10.3%)	34 (18.3%)	
	Education	1 (0.9%)	-	1 (0.5%)	
	Engineering	2 (1.9%)	16 (20.5%)	18 (9.7%)	
	Medicine	4 (3.7%)	4 (5.1%)	8 (4.3%)	
	Science	22 (20.4%)	13 (16.7%)	35 (18.8%)	
	Social science	47 (43.5%)	30 (38.5%)	77 (41.4%)	
Family income	8000 or below	6 (5.6%)	3 (3.8%)	9 (4.8%)	5.036
	8000-15000	29 (26.9%)	20 (25.6%)	49 (26.3%)	
	15001-20000	24 (22.2%)	17 (21.8%)	41 (22.0%)	
	20001-30000	28 (25.9%)	13 (16.7%)	41 (22.0%)	
	30001-40000	10 (9.3%)	11 (14.1%)	21 (11.3%)	
	40000 or above	11 (10.2%)	14 (17.9%)	25 (13.4%)	
Living arrangement	Living with parent	103 (95.4%)	74 (94.9%)	177 (95.2%)	0.024
	Living with grandparent	14 (13.0%)	12 (15.4%)	26 (14.0%)	0.221
	Living with spouse	1 (0.9%)	-	1 (0.5%)	0.726
	Living with children	2 (1.9%)	2 (2.6%)	4 (2.2%)	0.109
	Living with siblings	84 (77.8%)	62 (79.5%)	146 (78.5%)	0.078

Note: *p<.05; **p<.01; ***p<.001

Table 1c. Demographics of Participants - Community Sample (N = 278)

		Male N = 117	Female N = 161	Total N = 278	Gender difference in χ^2
Age	20 or below	5 (4.3%)	13 (8.1%)	18 (6.5%)	18.555**
	21-30	65 (55.6%)	56 (34.8%)	121 (43.5%)	
	31-40	25 (21.4%)	32 (19.9%)	57 (20.5%)	
	41-50	16 (13.7%)	48 (29.8%)	64 (23.0%)	
	51-60	3 (2.6%)	10 (6.2%)	13 (4.7%)	
	61 or above	3 (2.6%)	2 (1.2%)	5 (1.8%)	
Gender	Male	117 (100%)	-	117(42.1%)	-
	Female	-	161 (100%)	161 (57.9%)	
Education level	Primary or below	8(6.8%)	22 (13.7%)	30 (10.8%)	17.746***
	Junior secondary	11 (9.4%)	39 (24.25)	50 (18.0%)	
	Senior secondary	55 (47.0%)	66 (41.0%)	121 (43.5%)	
	Degree / Diploma or above	43 (36.8%)	34 (21.1%)	77 (27.7%)	
Martial Status	Single	71 (60.7%)	67 (41.6%)	138 (49.6%)	10.302*
	Married	44 (37.6%)	89 (55.3%)	133 (47.8%)	
	Separated or Divorced	2 (1.7%)	5 (3.1%)	7 (2.6%)	
Occupation	Managerial / Executives	17 (14.5%)	8 (5.0%)	25 (9.%)	25.198***
	Professionals	30 (25.6%)	21 (13.0%)	51 (18.3%)	
	Clerical staff	43 (36.8%)	61 (37.9%)	107 (37.4%)	
	Blue collars	14 (12.0%)	18 (11.2%)	32 (11.5%)	
	Others	13 (11.1%)	51 (31.7%)	64 (23.0%)	
	Missing	-	2 (1.2%)	2 (0.7%)	
Family income	8000 or below	7 (6.0%)	19 (11.8%)	26 (9.4%)	14.097**
	8000-15000	20 (17.1%)	38 (23.6%)	58 (20.9%)	
	15001-20000	19 (16.2%)	34 (21.1%)	53 (19.1%)	
	20001-30000	18 (15.4%)	32 (19.9%)	50 (18.0%)	
	30001-40000	26 (22.2%)	21 (13.0%)	47 (16.9%)	
	40000 or above	24 (20.5%)	16 (9.9%)	40 (14.4%)	
	Missing	3 (2.6%)	1 (0.6%)	4 (1.4%)	
Living arrangement	Living with parent	70 (59.8%)	67 (41.6%)	137 (49.3%)	8.994**
	Living with grandparent	1 (0.9%)	7 (4.3%)	8 (2.9%)	2.958
	Living with spouse	30 (25.6%)	52 (32.3%)	82 (29.5%)	1.444
	Living with children	30 (25.6%)	66 (41.0%)	96 (34.5%)	7.065*
	Living with siblings	60 (51.3%)	51 (31.7%)	111 (39.9%)	10.858**
	Others	3 (2.6%)	8 (5.0%)	11 (4.0%)	1.031

Note: *p<.05; **p<.01; ***p<.001

Instruments

Assessment of Abuse and Support. The Revised Conflict Tactic Scale (CTS2; Straus et al., 1996) assessed the extent and nature of abuse. The two sub-scales of Psychological Aggression and Physical Assault were used in the present study. The CTS2 scale has good reliability (Alpha = .79 for Psychological Aggression and .86 for Physical Assault), and satisfactory construct validity (Correlation between Psychological Aggression and Physical Assault = .71).

Physical abuse means at least one act of physical violence against an elder individual since he or she turned 65. The 12 items from the CTS2 encompass a wide range of violent behavior, from being slapped, grabbed, or choked to being assaulted by a knife. Verbal abuse is defined as insulting or threatening an elder person at least ten times in the preceding year. The 8 items from the CTS2 were used in the present study.

Three items on social abuse were self-constructed based on particularly related literature (Glendenning, 1997). These included "locking up an elder person", "do not allow visits from relatives and friends", "do not allow an elder person to visits his/her relatives and friends". Twelve items on support were also self-constructed. These included "buying an elder person gifts", "keeping an elder person company when he/she is feeling blue", "taking care of an elder person when he/she is not feeling well", etc.

Respondents were asked whether they would display such behaviors to an elder person given there were no social constrains and no punishment whatsoever would follow. Respondents rated their likelihood of displaying these behaviors on a four-point scale depicting occurrence from "never", "seldom", "sometimes" to "always". A higher score indicates a higher level of proclivity. Proclivity estimates

were calculated as the rate (i.e. reports of "seldom", "sometimes" and "always") of proclivity to any abusive behavior, regardless of the reported rate of occurrence.

Assessment of Intergenerational transmission of violence. The Revised Conflict Tactic Scale (CTS2; Straus et al., 1996), as well as the additional items constructed on social abuse, were used to assess the extent and nature of abuse respondents experienced as a child. Respondents were asked whether they experienced such violent behavior in their family as a child on a four-point scale depicting occurrence from "never", "seldom", "sometimes" to "always".

Assessment of modernity. The modernity sub-scale of the Chinese Personality Assessment Inventory (Cheung et al, 1996) was used in the present study. The 15-item modernity sub-scale measures one's flexibility in adoption of traditional Chinese beliefs and values. Respondents were asked to indicate whether or not each item was applicable to them. The total number of endorsed items in the direction of modernity represents the respondent's modernity score. The scale is found to be valid and reliable among Hong Kong Chinese (Cheung et al., 1996). A four-point scale ranging from "strongly disagree" to "strongly agree" was used, and a higher score on the modernity sub-scale indicates a higher flexibility in adopting the traditional Chinese beliefs.

Assessment of filial piety. The 10-item Filial Piety and Ancestral Worship subscale of Chinese Individual Traditionality Scale (Yang & Huang, 1991) was used to assess participants' attitudes toward filial piety. The scale is originally written in Chinese and has satisfactory internal reliability, with alpha coefficient ranged from .75 to .80 (Yang & Wang, 1991). A four-point scale was used and a higher score on the filial piety subscale indicates a more conservative attitude towards filial piety.

Assessment of attitudes toward elderly. Participants' attitudes toward the elderly were examined by the revised Kogan Attitudes Toward Old People Scale (Hilt & Lipschultz, 1999). This scale is a reliable and valid measure to study attitudes toward aged persons, with alpha coefficient of .79 (Hilt & Lipschultz, 1999). Only nine items were used in the present study to evaluate participants' attitudes toward older people, and are grouped into either positive or negative attitudes. A four-point scale was used and a higher score on this scale represents more positive attitudes toward older people.

CHAPTER 3: RESULTS

Proclivity Estimates

For the benefit of easy reference, proclivity estimates were calculated as the rate of proclivity. Proclivity rate of elder abuse referred to the percentages of participants admitted they would display one or more of the abusive behavior depicted given there is no social constrains or punishment for the acts. Respondents' endorsements of "seldom", "sometimes", and "always" to any of the abusive behavior depicted were compiled in calculating the proclivity estimates. A score on proclivity to abuse was also calculated by grouping together participants' endorsement of proclivity to verbal abuse, physical abuse and social abuse.

A great majority of the participants admitted that they would verbally abuse their elder relatives if there were no social constraints or legal responsibility (61.9%). The more commonly adopted items under proclivity to verbal abuse were "throwing his / her temper at an elder person" (50.2%), "yelling at an elder person"(33.4%), and "insulting an elder person"(28.9%). Proclivity to physical and social abuse was slightly lower, counting 7.8% and 5.4% respectively. The more commonly endorsed items in proclivity to physical abuse were "kicking, biting, or hitting an elder person"(6.0%), "assaulting an elder person with thing that might hurt"(4.5%) and "grabbing an elder person"(4.5%) respectively. The most commonly endorsed item in proclivity to social abuse "do not allow an elder person to visit his/her friends and relatives"(4.7%).

Almost all of the participants suggested that they would provide support to an elder person even when there's no social constrains (98.7%). The more commonly endorsed items on proclivity to support were "keeping an elder person company when

he/she was feeling blue" (97.8%), "buying an elder person gifts" (97.2%), and "taking care of an elder person when he/she was not feeling well" (97.2%).

No gender difference was observed in the proclivity to subtypes of abuse, total score on abuse, and support (χ^2 = range from .002 to 2.588, $p>.05$). A summary of proclivity estimates is presented in Tables 2a.

Table 2a. Proclivity Estimates (N = 464)

	Male	Female	Total N = 464	Gender difference in χ^2
Proclivity to Verbal Abuse	145 (60.7%)	142 (63.1%)	287 (61.9%)	0.379
Proclivity to Physical Abuse	18 (7.5%)	18 (8.0%)	36 (7.8%)	0.042
Proclivity to Social Abuse	9 (3.8%)	16 (7.1%)	25 (5.4%)	2.588
Proclivity to Abuse	145 (60.7%)	143 (63.6%)	288 (62.1%)	0.513
Proclivity to Support	236 (98.7%)	222 (98.7%)	458 (98.7%)	0.002

NB: Proclivity estimates were calculated as rate of proclivity, i.e. percentage of participants admit that they would display one or more abusive behaviors toward an elder person given there are no social constrains or punishment for such acts. Proclivity to abuse was calculated by compiling proclivity to verbal abuse, physical abuse and social abuse.

Proclivity rates were also calculated separately for college and community samples. Significant difference was observed between the college and the community sample in proclivity to physical abuse and social abuse (χ^2 =5.277 & 4.263, $p<.005$). In general, participants from the college sample tended to endorse higher level of proclivity to both physical and social abuse as compared to that of the community sample. Gender difference was noted in proclivity to verbal abuse and proclivity to abuse in general in the college sample (χ^2 =6.145 & 6.145, $p<.005$). Male participants in the college sample tended to endorse higher level of proclivity to verbal absue and overall abuse in the college sample. A summary of proclivity estimates is presented in Tables 2b.

Table 2b. Proclivity Estimates - College Sample (N = 186)

	Male N = 108	Female N = 78	College N = 186	Gender difference in χ^2
Proclivity to Verbal Abuse	79 (73.1%)	44 (56.4%)	123 (66.1%)	6.145*
Proclivity to Physical Abuse	10 (9.3%)	11 (14.1%)	21 (11.3%)	1.014
Proclivity to Social Abuse	9 (8.3%)	6 (7.7%)	15 (8.1%)	0.031
Proclivity to Abuse	79 (73.15)	44 (56.4%)	123 (66.1%)	6.145*
Proclivity to Support	107 (99.1%)	78 (100%)	185 (99.5%)	-

NB: Proclivity estimates were calculated as rate of proclivity, i.e. percentage of participants admit that they would display one or more abusive behaviors toward an elder person given there are no social constrains or punishment for such acts. Proclivity to abuse was calculated by compiling proclivity to verbal abuse, physical abuse and social abuse.
Note: *p<.05; **p<.01; ***p<.001

There was no gender difference noted in the community sample. A summary of proclivity estimates is presented in Tables 2c.

Table 2c. Proclivity Estimates - Community Sample

	Male N = 117	Female N = 161	Community N=225	Gender difference in χ^2
Proclivity to Verbal Abuse	63 (53.8%)	101 (62.7%)	164 (59.0%)	2.121
Proclivity to Physical Abuse	8 (6.8%)	7 (4.3%)	15 (5.4%)	0.841
Proclivity to Social Abuse	7 (6.0%)	3 (1.9%)	10 (3.6%)	3.348
Proclivity to Abuse	64 (54.7%)	101 (62.7%)	165 (59.4%)	1.725
Proclivity to Support	115 (98.3%)	158 (98.1%)	273 (98.2%)	0.050

NB: Proclivity estimates were calculated as rate of proclivity, i.e. percentage of participants admit that they would display one or more abusive behaviors toward an elder person given there are no social constrains or punishment for such acts. Proclivity to abuse was calculated by compiling proclivity to verbal abuse, physical abuse and social abuse.

Correlation between Proclivity Estimates and Demographics

For the subsequent analyses, proclivity was calculated as the degree of proclivity, i.e. scores ranging from "never" to "always" were considered separately. Descriptive statistics and internal consistency reliability for major variables are summarized in Table 3.

Table 3. Mean and Standard Deviations of Psychological Variables.

	Internal Reliability	Male (N=225)		Female (N=239)		College (N=186)		Community (N=278)		Total (N=464)	
	Alpha	M	SD	M	SD	M	SD	M	SD	M	SD
Proclivity to Verbal Abuse	.8234	1.37	.45	1.31	.41	1.41	.48	1.28	.39	1.33	.43
Proclivity to Physical Abuse	.9764	1.07	.31	1.05	.22	1.08	.31	1.04	.23	1.06	.27
Proclivity to Social Abuse	.9055	1.08	.33	1.04	.22	1.09	.34	1.04	.22	1.06	.28
Proclivity to Abuse	.9386	1.16	.32	1.12	.24	1.18	.32	1.11	.24	1.14	.28
Proclivity Support	.9084	2.91	.56	2.85	.55	2.94	.54	2.85	.57	2.88	.56
Modernity	.7075	2.89	.30	2.80	.30	2.91	.31	2.80	.29	2.84	.31
Filial Piety	.7508	2.58	.36	2.62	.36	2.58	.35	2.61	.36	2.60	.36
Attitudes toward Elderly	.4398	2.63	.24	2.62	.27	2.62	.26	2.62	.25	2.62	.25
Childhood experience of Verbal Abuse	.7553	2.07	.72	1.93	.62	1.98	.56	2.01	.74	2.00	.67
Childhood experience of Physical Abuse	.9081	1.39	.47	1.34	.41	1.38	.42	1.34	.45	1.36	.44
Childhood experience of Social Abuse	.8530	1.17	.43	1.14	.40	1.15	.39	1.16	.44	1.16	.42
Childhood experience of Abuse	.9120	1.55	.46	1.48	.42	1.52	.40	1.51	.47	1.51	.44
Childhood experience of Support	.8384	3.14	.54	3.05	.55	3.30	.42	2.95	.58	3.09	.55

Correlation analyses were conducted to determine the associations between demographic data and proclivity scores. Participants' age was negatively correlated with proclivity to all forms of abuses (rs ranged from -.106 to -.171, p<.05 & .01), indicating younger participants tended to endorse higher level of proclivity to abuse. Gender was not correlated with proclivity to any form of abuse (p>.05). Participants' marital status was negatively correlated with proclivity to all forms of abuse as well as proclivity to support (rs ranged from -.100 to -.187, p<.05 & .01), indicating participants who were single tended to endorse higher level of proclivity to abuse. Participants' education level was positively correlated with proclivity to support (r=.108, p<.05), but was also positively correlated with proclivity to verbal abuse, social abuse as well as overall abuse (rs ranged form .092 to .180, p<.05 & .01), meaning that participants who attained higher level of education tended to endorse higher level of proclivity to support and abuse. Participants' household size was positively correlated with verbal abuse (r=.096, p<.05), suggesting participants with larger household size tended to endorse higher level of proclivity to verbal abuse. Participants' parents' age was negatively correlated with proclivity to support, as well as proclivity to all forms of abuse (rs ranged from -.103 to -.151, p<.05) with the exception of proclivity to social abuse (p>.05), thus suggesting participants with older parents tended to endorse higher level of proclivity to support and abuse.

Correlation results between proclivity and participants' demographic data were summarized in Table 4a.

Table 4a. Correlation between Proclivity to Abuse and Participants' Demographics

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proclivity to Verbal Abuse	1.000												
2. Proclivity to Physical Abuse	.572**	1.000											
3. Proclivity to Social Abuse	.534**	.872**	1.000										
4. Proclivity to abuse	.834**	.926**	.858*	1.000									
5. Proclivity to Support	-.034	-.051	-.054	-.051	1.000								
6. Age	-.171**	-.106*	-.111*	-.151**	-.074	1.000							
7. Gender	-.068	-.045	-.072	-.066	-.053	.169**	1.000						
8. Education Level	.180**	.089	.092*	.142**	.108*	-.681**	-.237**	1.000					
9. Marital Status	-.187**	-.100*	-.100*	-.152**	-.113*	.744**	.198**	-.643**	1.000				
10. Household Size	.096*	.040	.051	.072	-.024	-.073	-.047	.081	-.056	1.000			
11. Family Income	-.008	-.084	-.073	-.060	-.043	-.011	-.085	.231**	-.054	.084	1.000		
12.Occupation	.071	.048	.062	.067	.122**	-.435**	.001	.294**	-.320**	.086	-.208**	1.000	
13. Parent's Age	-.132**	-.103*	-.097	-.127*	-.151**	.843**	.157**	-.556**	.717**	-.031	.047	-.441**	1.000

Note: *p<.05; **p<.01

Additional correlation analyses were conducted to unearth potential distinct patterns of correlation between the two genders. Results indicated that the negative correlation between age and proclivity to various forms of abuse were more prominent among the female participants (rs ranged form -.137 to -.169, p<.05 & .01), although age was also negatively correlated with proclivity to verbal abuse among male participants (r=-.190, p<.01). Participants' marital status was negatively correlated with proclivity to all forms of abuse among female participants (rs ranged from -.145 to -.180, p<.05 & .01) and was negatively correlated with proclivity to verbal abuse among male participants (r=-.197, p<.01). Participants' education level was positively correlated with proclivity to verbal abuse (r =.167, p<.01), physical abuse (r =.171, p <.01), social abuse (r =.152, p <.05) as well as overall abuse (r =.192, p <.01) among female participants, but was positively correlated with proclivity to support (r =.158, p <.05) among their male counterparts. The correlation between household size and proclivity to verbal abuse was observed among male participants (r =.142, p <.05), but not among female participants (p >.05). Participants' parents' age was negatively correlated with proclivity to physical abuse and overall abuse among females (rs =-.143 & -.147, p <.05), and was negatively correlated with proclivity to support among males (r=-.160, p <.05).

Summary of correlation between proclivity and participants' demographic data by gender was present in Table 4b.

Table 4b. Correlation between Proclivity to Abuse and Participants' Demographics by Gender

	1	2	3	4	5	6	7	8	9	10	11	12
1. Proclivity to Verbal Abuse		.544**	.491**	.847**	-.054	-.139*	.167**	-.164*	.049	.007	.029	-.119
2. Proclivity to Physical Abuse	.590**		.871**	.908**	-.046	-.156*	.171**	-.153*	.069	-.029	.069	-.143*
3. Proclivity to Social Abuse	.568**	.873**		.827**	-.116	-.137*	.152*	-.145*	.076	.004	.043	-.112
4. Proclivity to Abuse	.829**	.937**	.876**		-.067	-.169**	.192**	-.180**	.071	-.010	.056	-.147*
5. Proclivity to Support	-.022	-.062	-.020	-.047		-.034	.056	-.058	-.081	-.025	.201**	-.136
6. Age	-.190**	-.058	-.077	-.122	-.105		-.659**	.739**	-.013	-.062	-.368**	.866**
7. Education Level	.178**	.000	.019	.076	.158*	-.689**		-.635**	.064	.272**	.245**	-.562**
8. Marital Status	-.197**	-.045	-.047	-.113	-.164*	.730**	.061		-.035	-.066	-.295**	.716**
9. Household Size	.142*	.014	.028	.071	.039	-.144**	.086	-.025		-.014	.054	.076
10. Family Income	-.035	-.134*	-.141*	-.111	-.069	.090	.141*	.002	.202**		-.088	-.005
11.Occupation	.105	.036	.074	.075	.055	-.529**	.387**	.006	.122	-.318**		-.423**
12. Parent's Age	-.134	-.064	-.074	-.100	-.160*	.794**	-.510**	-.078	-.159*	.150*	-.484**	

NB: Left diagonal represents results for males whereas the right diagonal represents results for females

Note: *p<.05; **p<.01

Correlation analyses were also conducted independently for the college and community samples. The negative correlation between age and proclivity was only observed in proclivity to verbal abuse and overall abuse the community sample (r_s= -.148 & -.139, $p<.05$), but not in the college sample ($p>.05$). This suggested that younger participants' from the community sample tended to endorse higher level of proclivity to abuse, but the same case did not apply to college participants. Participants' parents' age was negatively correlated with support (r=-.178, $p<.01$) in the community sample but not in the college sample, indicating participants with younger parents tended to endorse higher level of proclivity to support, this is the case for participants from the community sample but not the case for the college sample. The only demographic variable that correlated with any form of proclivity in the college sample was participants' household size (r=.147, $p<.05$) which correlated with proclivity to verbal abuse, indicating college participants with larger household size tended to endorse higher level of proclivity to abuse.

Summary of correlation results between proclivity and participants' demographic data for the college and the community samples was present in Tables 4c-d respectively.

Table 4c. Correlation between Proclivity to Abuse and Participants' Demographics - College Sample

	1	2	3	4	5	6	7	8	9	10
1. Proclivity to Verbal Abuse	1.000									
2. Proclivity to Physical Abuse	.575**	1.000								
3. Proclivity to Social Abuse	.514**	.829**	1.000							
4. Proclivity to Abuse	.828**	.930**	.835**	1.000						
5 Proclivity to Support	-.096	-.073	-.083	-.094	1.000					
6. Age	-.025	-.030	.049	-.020	-.050	1.000				
7. Gender	-.065	.028	-.027	-.016	-.065	.078	1.000			
8. Household Size	.147*	-.004	-.057	.052	.038	-.056	-.135	1.000		
9. Family Income	.070	-.074	-.071	-.022	-.117	.124	.097	.120	1.000	
10. Parent's Age	.019	-.037	-.026	-.016	.034	.096	-.023	.141	.016	1.000

Note: *p<.05; **p<.01

Table 4d. Correlation between Proclivity to Abuse and Participants' Demographics - Community Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proclivity to Verbal Abuse	1.000												
2. Proclivity to Physical Abuse	.561**	1.000											
3. Proclivity to Social Abuse	.552**	.934**	1.000										
4. Proclivity to Abuse	.836**	.921**	.891**	1.000									
5. Proclivity to Support	-.004	-.047	-.043	-.033	1.000								
6. Age	-.148*	-.102	-.113	-.139*	-.035	1.000							
7. Gender	-.032	-.091	-.094	-.077	-.026	.115	1.000						
8. Education Level	.169**	.073	.073	.127*	.095	-.487**	-.233**	1.000					
9. Marital Status	-.190**	-.100	-.098	-.154*	-.105	.629**	.179**	-.482**	1.000				
10. Household Size	.063	.054	.104	.072	-.058	-.002	.005	.018	.002	1.000			
11. Family Income	-.062	-.093	-.074	-.089	.005	-.049	-.207**	.387**	-.096	.080	1.000		
12. Occupation	-.115	-.053	-.038	-.087	.127*	.180**	.289**	-.434**	.218**	-.006	-.407**	1.000	
13. Parent's Age	-.092	-.092	-.093	-.104	-.178**	.817**	.151*	-.335**	.653**	.024	.009	.133*	1.000

Note: *p<.05; **p<.01

Correlation between Proclivity Estimates and Psychological Variables

Correlation analyses were also conducted to determine the associations between various psychological variables and proclivity scores. Participants' level of modernity was negatively correlated with their proclivity to physical abuse and social abuse (r_s = -.108 & -.107, p<.05), indicating participants with more rigid attitudes towards modernity tended to endorse higher level fo proclivity to physical and social abuse. Filial piety was not correlated to proclivity to any form of abuse, but was positively correlated with proclivity to support (r=.115, p<.05), indicating participants place higher values on filial piety also tended to endorse higher level fo proclivity to support. Participants' attitudes toward elderly were negatively correlated with proclivity to all forms of abuse (r_s ranged from -.132 to -.180, p<.01), indicating participants with more negative attitudes toward elderly people tended to endorse higher level of proclivity to abuse. Participants' childhood experience of verbal abuse was positively correlated with proclivity to all forms of abuse (r_s ranged from .130 to .316, p<.01). Childhood experience of physical abuse was also correlated with proclivity to all forms of abuse (r_s ranged form .338 to .424, p<.01) and so was childhood experience of social abuse (r_s ranged from .277 to .463, p<.01). Participants' childhood experience of support was positively correlated with their proclivity to support (r=.386, p<.01) but negatively correlated with proclivity to physical abuse and social abuse (r_s =-.106 and -.097, p<.05).

Results of correlation analysis are summarized in Table 5a.

Table 5a. Correlation between Proclivity to Abuse and Psychological Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proclivity to Verbal Abuse	1.000												
2. Proclivity to Physical Abuse	.572**	1.000											
3. Proclivity to Social Abuse	.534**	.872**	1.000										
4. Proclivity to Abuse	.834**	.926**	.858**	1.000									
5. Proclivity to Support	-.034	-.051	-.054	-.051	1.000								
6. Modernity	-.022	-.108*	-.107*	-.084	-.029	1.000							
7. Filial Piety	-.016	-.016	.003	-.016	.115*	-.461**	1.000						
8. Attitudes toward elderly	-.172**	-.154**	-.132**	-.180**	.147**	.028	.083	1.000					
9. Experience of Verbal Abuse	.316**	.146**	.130**	.239**	-.031	.122**	-.102*	-.043	1.000				
10. Experience of Physical Abuse	.338**	.406**	.363**	.424**	-.075	.029	-.098*	-.082	.638**	1.000			
11. Experience of Social Abuse	.277**	.463**	.412**	.436**	-.019	-.074	.000	-.088	.352**	.652**	1.000		
12. Experience of Abuse	.371**	.361**	.323**	.409**	-.059	.059	-.101*	-.079	.850**	.940**	.663**	1.000	
13. Experience of Support	.014	-.106*	-.097*	-.066	.386**	.134**	.080	.062	-.058	-.212**	-.248**	-.180**	1.000

Note: *p<.05; **p<.01

A closer look at the correlation broken down by gender indicate that the correlation between modernity and proclivity to social abuse was only observed among male participants (r=-.132, p<.05), but not female participants (p>.05). This suggests that male participants who were less flexible in adopting traditional Chinese values tended to endorse higher level of proclivity to abuse while the same case did not apply to female participants. A positive correlation between filial piety and proclivity to support was also noted among males (r=.172, p<.01), but not females (p>.05) indicating males participants, but not females, placing higher values on filial piety tended to endorse higher level of proclivity to support. Attitudes toward elderly were negatively correlated with proclivity to all forms of abuse in both genders (rs ranged form -.138 to -.178, p<.05 among males and from -138 to –198, p<.05 & .01 among females), thus suggesting that participants with more negative attitudes toward elderly people tended to endorse higher level of proclivity to abuse in both genders. Experience of verbal abuse, physical abuse, social abuse, and overall abuse, were correlated with proclivity to various forms of abuse in both genders. This was observed in proclivity to verbal abuse (rs ranged from .156 to .432, p<.05 & .01), physical abuse (rs ranged from .168 to .604, p<.05 & .01), social abuse (rs ranged form .161 to .559, p<.05 & .01), as well as overall abuse (rs ranged form .197 to 584, p<.01), with the exception of participants' childhood experience of verbal abuse and their proclivity to physical and social abuse among female participants (p>.05).

Results of the correlation analysis by gender were summarized in Table 5b.

Table 5b. Correlation between Proclivity to Abuse and Psychological Variables by Gender

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proclivity to Verbal Abuse		.554**	.491**	.847**	-.054	-.032	-.093	-.198**	.271**	.283**	.156*	.295**	-.017
2. Proclivity to Physical Abuse	.590**		.871**	.908**	-.046	-.114	-.052	-.145*	.104	.278**	.270**	.238**	-.098
3. Proclivity to Social Abuse	.568**	.873**		.827**	-.116	-.107	-.013	-.138*	.065	.226*	.199**	.182**	-.133*
4. Proclivity to Abuse	.829**	.937**	.876**		-.067	-.089	-.075	-.191**	.197**	.315**	.244**	.294**	-.076
5. Proclivity to Support	-.022	-.062	-.020	-.047		.050	.065	.171**	-.123	-.174**	-.059	-.158*	.356**
6. Modernity	-.033	-.122	-.132*	-.102	-.128		-.502**	-.034	.100	.078	.004	.086	.224**
7. Filial Piety	.069	.015	.019	.040	.172**	-.414**		.170**	-.085	-.107	-.019	-.099	.020
8. Attitudes toward Elderly	-.149*	-.171*	-.138*	-.178*	.119	.098	-.021		-.150*	-.030	.037	-.075	.134*
9. Experience of Verbal Abuse	.346**	.168*	.161*	.261**	.040	.117	-.112	-.153*		.729**	.433**	.891**	-.214**
10. Experience of Physical Abuse	.380**	.493**	.450**	.501**	.011	-.033	-.086	-.152*	.562**		.592**	.951**	-.242**
11. Experience of Social Abuse	.383**	.604**	.559**	.584**	.016	-.164*	.023	-.171*	.280**	.703**		.653**	-.278**
12. Experience of Abuse	.432**	.447**	.413**	.491**	.027	.010	-.097	-.179**	.814**	.932**	.672**		-.265**
13. Experience of Support	.033	-.124	-.087	-.070	.412**	.013	.156*	.200**	.074	-.196**	-.226**	-.112	

NB: Left diagonal represents results for males whereas the right diagonal represents results for females

Note: *p<.05; **p<.01

Correlation between modernity and proclivity was particularly salient in the college sample, where modernity was negatively correlated with proclivity to verbal abuse, physical abuse, social abuse and overall abuse (rs ranged from -.190 to -.307, p<.01). Modernity was not correlated with any form of proclivity in the community sample. Filial piety was positively correlated with proclivity to support in the college sample (r=.252, p<.01) but not in the community sample. Attitudes toward elderly was negatively correlated with proclivity to all forms of abuse in the college sample (rs ranged from -.157 to -.223, p<.05 & .01) and the community sample (rs ranged from -.121 to -.143, p<.05) with the exception of proclivity to social abuse in the community sample. In general, childhood experience of abuse was correlated with proclivity to all forms of abuses, these included proclivity to verbal abuse (r ranged from .327 to .416 in the college sample and .257 to .355 in the community sample, p<.01), proclivity to physical abuse (r ranged from .221 to .599 in the college sample and .297 to .380 in the community sample, p<.01), proclivity to social abuse (r ranged from .182 to .510 in the college sample and .337 to .363 in the community sample, p<.01), with the exception of the correlation between childhood experience of verbal abuse and proclivity to physical abuse and social abuse in the community sample.

Results of the correlation analyses for the college and the community sample were presented in tables 5c-d.

Table 5c. Correlation between Proclivity to Abuse and Psychological Variables in the College Sample

	1	2	3	4	5	6	7	8	9	10	11	12	14
1. Proclivity to Verbal Abuse	1.000												
2. Proclivity to Physical Abuse	.575**	1.000											
3. Proclivity to Social Abuse	.514**	.829**	1.000										
4. Proclivity to Abuse	.828**	.930**	.835**	1.000									
5. Proclivity to Support	-.096	-.073	-.083	-.094	1.000								
6. Modernity	-.190**	-.307**	-.274**	-.294**	-.122	1.000							
7. Filial Piety	-.010	-.028	.006	-.019	.252**	-.477**	1.000						
8. Attitudes toward Elderly	-.216**	-.191**	-.157*	-.223**	.184*	.062	.244**	1.000					
9. Experience of Verbal Abuse	.368**	.221**	.182*	.309*	-.077	-.042	-.107	-.150*	1.000				
10. Experience of Physical Abuse	.371**	.495**	.413**	.498**	-.114	-.175*	-.139	-.129	.683**	1.000			
11. Experience of Social Abuse	.327**	.599**	.510**	.551**	-.037	-.209**	-.084	-.100	.341**	.577**	1.000		
12. Experience of Abuse	.416**	.468**	.391**	.499**	-.105	-.151*	-.138	-.151*	.857**	.953**	.621**	1.000	
13. Experience of Support	-.098	-.227**	-.208**	-.200**	.286**	.168*	.194**	.150*	-.160*	-.277**	-.241**	-.264**	1.000

Note: *p<.05; **p<.01

Table 5d. Correlation between Proclivity to Abuse and Psychological Variables in the Community Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proclivity to Verbal Abuse	1.000												
2. Proclivity to Physical Abuse	.561**	1.000											
3. Proclivity to Social Abuse	.552**	.934**	1.000										
4. Proclivity to Abuse	.836**	.921**	.891**	1.000									
5. Proclivity to Support	-.004	-.047	-.043	-.033	1.000								
6. Modernity	.076	.053	.032	.069	.007	1.000							
7. Filial Piety	-.007	.003	.009	-.001	.037	-.450**	1.000						
8. Attitudes toward Elderly	-.137*	-.121*	-.110	-.143*	.125*	.005	-.026	1.000					
9. Experience of Verbal Abuse	.310**	.108	.110	.216**	-.007	.225**	-.103	-.149*	1.000				
10. Experience of Physical Abuse	.316**	.345**	.337**	.376**	-.057	.152*	-.069	-.060	.623**	1.000			
11. Experience of Social Abuse	.257**	.380**	.363**	.373**	-.006	.015	.048	-.036	.358**	.697**	1.000		
12. Experience of Abuse	.355**	.297**	.291**	.363**	-.036	.189**	-.079	-.105	.849**	.935**	.686**	1.000	
13. Experience of Support	.007	-.089	-.089	-.056	.429**	.040	.058	.189**	-.012	-.219**	-.263**	-.163**	1.000

Note: *p<.05; **p<.01

Hierarchical Multiple Regression

A series of hierarchical multiple regression was conducted separately to uncover the respective contribution of various predictors for proclivity to verbal, physical and social abuse. Since participants' childhood experience of various forms of abuse were highly correlated, their scores were compiled to form a score on "childhood experience of abuse" for the following analysis to avoid multicollinearity. For subsequent analysis, participants' demographic variables were entered into Block 1 and included participants' age, gender, marital status, education level, household size, and their parents' age. Attitudinal variables including attitudes toward elderly, modernity and filial piety were entered into Block 2. Participants' childhood experience of abuse and support were entered into Block 3.

For proclivity to verbal abuse, the three blocks of predicting variables explained about 20.2% of the variance. Demographic characteristics were significant predictors and accounted for 4.9% of the variance (ΔR^2=.049 , F Change=3.289, $p<.01$). The second block of psychological variables was also found to have significant predictive value (ΔR^2=.042 , F Change=5.885, $p<.001$) and so was the third block of participants' childhood experience of abuse and support (ΔR^2=.111 , F Change=26.210, $p<.001$). The beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly, and a high level of childhood experience of abuse (β=-.154, .346 respectively)

The three blocks of predicting variables explained about 19.2% of the variance in proclivity to physical abuse. None of the demographic characteristics were significant predictors ($p>.05$). The second block of psychological variables was found to have significant predictive values, accounting for 4.9% of the variance (ΔR^2=.049,

F Change=6.637, p<.001), and so was the childhood experience of abuse and support in block three, which accounted for an additional 12.7% of the variance (ΔR^2=.127 , F Change=29.596, p<.001). The beta values of the final model showed that proclivity to physical abuse was best predicted by participants' negative attitudes toward elderly and modernity, and a high level of childhood experience of abuse (β=-.099, -.179, .333 respectively)

Taken together, the three blocks of predicting variables explained about 17.5% of the total variance in proclivity to social abuse. Demographic characteristics in block one were not significant in predicting participants' proclivity to social abuse (p>.05). The second block of psychological variables accounted for 4.1% of the variance (ΔR^2=.041, F Change=5.529, p<.01), while the third block of childhood experience accounted for another 11.7% of the variance (ΔR^2=.117, F Change=26.667, p<.001). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' negative attitudes toward elderly people and modernity as well as a high level of childhood experience of abuse (β= -.097, -.148, .315 respectively).

The three blocks of predicting variables explained about 23.3% of the total variance in proclivity to abuse. Demographic characteristics in block one were significant in predicting participants' proclivity to abuse (ΔR^2=.033 , F Change=2.160, p<.05). The second block of psychological variables accounted for an additional 5.5% of the variance (ΔR^2=.055, F Change=7.582, p<.001) and the third block of childhood experience accounted for an additional 14.5% of the variance (ΔR^2=.145, F Change= 35.693, p<.001). The beta values of the final model showed that proclivity to abuse was best predicted by participants' negative attitudes toward

elderly and modernity, as well as a high level of childhood experience of abuse (β= -.135, -.156, .377 respectively).

For proclivity to support, the three blocks of predicting variables explained about 18.1% of the variance. None of the demographic characteristics turned out to be significant (p>.05). The second block of psychological variables was found to have significant predictive value (ΔR^2=.032, F Change=4.358, p<.01) and so was the third block of participants' childhood experience of abuse and support (ΔR^2=.123, F Change=28.266, p<.001). The beta values of the final model showed that proclivity to support was best predicted by participants' positive attitudes toward elderly and high level of childhood experience of support (β=.102 & .402).

Table 6a. Results of Hierarchical Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.049	.049	3.289**
	Age	-.122			
	Gender	.005			
	Marital Status	-.069			
	Education Level	.053			
	Household Size	.077			
	Parent's Age	.056			
	Block 2: Psychological Variables		.091	.042	5.885***
	Attitudes toward Elderly	-.154***			
	Modernity	-.087			
	Filial Piety	.011			
	Block 3: Childhood Experience		.202	.111	26.210***
	Childhood experience of Abuse	.346***			
	Childhood experience of Support	.046			
Proclivity to Physical Abuse	Block 1: Demographics		.016	.016	1.062
	Age	-.044			
	Gender	-.010			
	Marital Status	.009			
	Education Level	.091			
	Household Size	-.003			
	Parent's Age	-.087			
	Block 2: Psychological Variables		.065	.049	6.637***
	Attitudes toward Elderly	-.099*			
	Modernity	-.179**			
	Filial Piety	-.023			
	Block 3: Childhood Experience		.192	.127	29.596***
	Childhood experience of Abuse	.333***			
	Childhood experience of Support	-.103			

To be continued

Table 6a. Results of Hierarchical Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Social Abuse	Block 1: Demographics		.017	017	1.072
	Age	-.050			
	Gender	-.023			
	Marital Status	-.004			
	Education Level	.082			
	Household Size	.002			
	Parent's Age	-.069			
	Block 2: Psychological Variables		.058	.041	5.529***
	Attitudes toward Elderly	-.097*			
	Modernity	-.148*			
	Filial Piety	.018			
	Block 3: Childhood Experience		.175	.117	26.667***
	Childhood experience of Abuse	.315***			
	Childhood experience of Support	-.110			
Proclivity to Abuse	Block 1: Demographics		.033	.033	2.160*
	Age	-.084			
	Gender	-.006			
	Marital Status	-.026			
	Education Level	.085			
	Household Size	.032			
	Parent's Age	-.033			
	Block 2: Psychological Variables		.088	.055	7.582***
	Attitudes toward Elderly	-.135**			
	Modernity	-.156**			
	Filial Piety	-.006			
	Block 3: Childhood Experience		.233	.145	35.693***
	Childhood experience of Abuse	.377***			
	Childhood experience of Support	-.052			
Proclivity to Support	Block 1: Demographics		.026	.026	1.716
	Age	-.007			
	Gender	-.034			
	Marital Status	-.030			
	Education Level	-.020			
	Household Size	-.013			
	Parent's Age	.037			
	Block 2: Psychological Variables		.059	.032	4.358**
	Attitudes toward Elderly	.102*			
	Modernity	-.040			
	Filial Piety	.049			
	Block 3: Childhood Experience		.181	.123	28.266***
	Childhood experience of Abuse	.022			
	Childhood experience of Support	.402***			

Note: *p<.05; **p<.01; ***p<.001

Similar hierarchical regression analyses were also conducted for the college and community sample separately. For the college sample, results of the regression analysis showed that the three blocks of predicting variables explained about 25.5% of the variance in proclivity to verbal abuse. Demographic characteristics were not significant in predicting proclivity to verbal abuse ($p>.05$). The second block of psychological variables was found to have significant predictive value ($\Delta R^2=.106$, F

Change=6.635, $p<.01$) and so was the third block of participants' childhood experience of abuse and support ($\Delta R^2=.130$, F Change=14.091, $p<.001$). The beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly and modernity as well as a high level of childhood experience of abuse (β=-.192, -.192, .386).

The three blocks of predicting variables explained about 33.1% of the variance in proclivity to physical abuse. None of the demographic characteristics were significant ($p>.05$). The second block of psychological variables was found to have significant predictive values, accounted for 15.5% of the variance ($\Delta R^2=.155$, F Change=10.044, $p<.001$), and so is the childhood experience of abuse and support in block three, which accounted for an additional 17.5% of the variance ($\Delta R^2=.175$, F Change=21.155, $p<.001$). The beta values of the final model showed that proclivity to physical abuse was best predicted by participants' negative attitudes toward modernity and a high level of childhood experience of abuse (β=-.290, .430 respectively).

The three blocks of predicting variables explained about 29.8% of the total variance in proclivity to social abuse. Demographic characteristics in block one were not significant in predicting participants' proclivity to social abuse ($p>.05$). The second block of psychological variables accounted for 11.7% of the variance ($\Delta R^2=.117$, F Change=7.280, $p<.001$), while the third block of childhood experience accounted for another 17.5% of the variance ($\Delta R^2=.175$, F Change=20.193, $p<.001$). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' negative attitudes toward modernity and their childhood experience of abuse (β=-.200 & .418 respectively).

The three blocks of predicting variables explained about 35.4% of the total variance in proclivity to abuse. Demographic characteristics in block one were not significant in predicting participants' proclivity to abuse ($p>.05$). The second block of psychological variables accounted for 16% of the variance ($\Delta R^2=.160$, F Change= 10.412, $p<.001$) and the third block of childhood experience accounted for an additional 19.2% of the variance ($\Delta R^2=.192$, F Change=24.072, $p<.001$). The beta values of the final model showed that proclivity to abuse was best predicted by participants' negative attitudes toward elderly people and modernity as well as a high level of childhood experience of abuse (β=-.148, -.271, .462 respectively).

For proclivity to support, the three blocks of predicting variables explained about 19% of the variance. None of the demographic characteristics turned out to be significant ($p>.05$). The second block of psychological variables was found to have significant predictive value ($\Delta R^2=.085$, F Change=5.140, $p<.01$) and so was the third block of participants' childhood experience of abuse and support ($\Delta R^2=.095$, F Change=9.483, $p<.001$). The beta values of the final model showed that proclivity to support was best predicted by participants' negative attitudes toward modernity and a high level of childhood experience of support (β=-.199 & .340 respectively).

Table 6b. Results of Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.019	.019	.824
	Age	-.096			
	Gender	-.106			
	Household Size	.054			
	Parent's Age	-.018			
	Block 2: Psychological Variables		.125	.106	6.635**
	Attitudes toward Elderly	-.192*			
	Modernity	-.192*			
	Filial Piety	-.037			
	Block 3: Childhood Experience		.255	.130	14.091***
	Childhood experience of Abuse	.386***			
	Childhood experience of Support	.082			

To be continued

Table 6b. Results of Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Physical Abuse	Block 1: Demographics		.002	.002	.072
	Age	-.094			
	Gender	-.061			
	Household Size	-.090			
	Parent's Age	-.071			
	Block 2: Psychological Variables		.157	.155	10.044***
	Attitudes toward Elderly	-.091			
	Modernity	-.290***			
	Filial Piety	-.066			
	Block 3: Childhood Experience		.331	.175	21.155***
	Childhood experience of Abuse	.430***			
	Childhood experience of Support	-.060			
Proclivity to Social Abuse	Block 1: Demographics		.006	.006	.251
	Age	-.030			
	Gender	-.099			
	Household Size	-.135			
	Parent's Age	-.074			
	Block 2: Psychological Variables		.123	.117	7.280***
	Attitudes toward Elderly	-.115			
	Modernity	-.200*			
	Filial Piety	.028			
	Block 3: Childhood Experience		.298	.175	20.193***
	Childhood experience of Abuse	.418***			
	Childhood experience of Support	-.099			
Proclivity to Abuse	Block 1: Demographics		.003	.003	.113
	Age	-.097			
	Gender	-.093			
	Household Size	-.046			
	Parent's Age	-.058			
	Block 2: Psychological Variables		.162	.160	10.412***
	Attitudes toward Elderly	-.148*			
	Modernity	-.271***			
	Filial Piety	-.049			
	Block 3: Childhood Experience		.354	.192	24.072***
	Childhood experience of Abuse	.462***			
	Childhood experience of Support	-.012			
Proclivity to Support	Block 1: Demographics		.010	.010	.410
	Age	-.122			
	Gender	-.015			
	Household Size	.094			
	Parent's Age	.130			
	Block 2: Psychological Variables		.095	.085	5.140*
	Attitudes toward Elderly	.128			
	Modernity	-.199*			
	Filial Piety	.063			
	Block 3: Childhood Experience		.190	.095	9.483***
	Childhood experience of Abuse	-.029			
	Childhood experience of Support	.340***			

Note: *p<.05; **p<.01; ***p<.001

Regarding the community sample, for proclivity to verbal abuse, the three blocks of predicting variables explained about 18.4% of the variance. Demographic characteristics were not significant in predicting proclivity to verbal abuse (p>.05).

The second block of psychological variables was found to have significant predictive value (ΔR^2=.036, F Change=2.742, p<.01) and so was the third block of participants' childhood experience of abuse and support (ΔR^2=.097, F Change=12.201, p<.001). The beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly and a high level of childhood experience of abuse (β=-.142 & .327 respectively).

The three blocks of predicting variables explained about 12.7% of the variance in proclivity to physical abuse. None of the demographic characteristics were significant predictors (p>.05). The second block of psychological variables was also found to be insignificant (p>.05). Participants' childhood experience of abuse and support in block three was significant in predicting proclivity to abuse and accounted for an additional 7.4% of the variance (ΔR^2=.074, F Change=8.649, p<.001). The beta values of the final model showed that proclivity to physical abuse was best predicted by participants' high level of childhood experience of abuse (β=.249)

Taken together, the three blocks of predicting variables explained about 12.5% of the total variance in proclivity to social abuse. Demographic characteristics in block one were not significant in predicting participants' proclivity to social abuse (p>.05). The second block of psychological variables was also found to be insignificant (p>.05), while the third block of childhood experience accounted for an additional 6.6% of the variance (ΔR^2=.066 , F Change=7.784, p<.001). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' high level of childhood experience of abuse (β=.232).

The three blocks of predicting variables explained about 17.8% of the total variance in proclivity to abuse. Demographic characteristics in block one were not

significant in predicting participants' proclivity to abuse (p>.05). The second block of psychological variables accounted for 4% of the variance (ΔR^2=.040 , F Change= 2.974, p<.05) and the third block of childhood experience accounted for an additional 9.8% of the variance (ΔR^2=.098 , F Change=12.187, p<.001). The beta values of the final model showed that proclivity to abuse was best predicted by participants' negative attitudes toward elderly and a high level of childhood experience of abuse (β=-.147 & .312 respectively).

For proclivity to support, None of the demographic characteristics and psychological variables turned out to be significant predictors (p>.05). The third block of participants' childhood experience of abuse and support was found to have significant predictive value (ΔR^2=.163 , F Change=21.583, p<.001). The beta values of the final model showed that proclivity to support was best predicted by participants' high level of childhood experience of support (β=.444).

Table 6c. Results of Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.050	050	1.855
	Age	-.164			
	Gender	.104			
	Marital Status	-.115			
	Education Level	.035			
	Household Size	.097			
	Parent's Age	.148			
	Block 2: Psychological Variables		.087	.036	2.742*
	Attitudes toward Elderly	-.142*			
	Modernity	.057			
	Filial Piety	.088			
	Block 3: Childhood Experience		.184	.097	12.201***
	Childhood experience of Abuse	.327***			
	Childhood experience of Support	.044			

To be continued

Table 6c. Results of Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Physical Abuse	Block 1: Demographics		.025	.025	.884
	Age	-.116			
	Gender	.018			
	Marital Status	-.005			
	Education Level	.065			
	Household Size	.055			
	Parent's Age	.011			
	Block 2: Psychological Variables		.054	.029	2.125
	Attitudes toward Elderly	-.125			
	Modernity	.026			
	Filial Piety	.071			
	Block 3: Childhood Experience		.127	.074	8.649***
	Childhood experience of Abuse	.249***			
	Childhood experience of Support	-.096			
Proclivity to Social Abuse	Block 1: Demographics		.032	.032	1.162
	Age	-.141			
	Gender	.020			
	Marital Status	-.022			
	Education Level	.062			
	Household Size	.081			
	Parent's Age	.038			
	Block 2: Psychological Variables		.059	.027	1.967
	Attitudes toward Elderly	-113			
	Modernity	.031			
	Filial Piety	.094			
	Block 3: Childhood Experience		.125	.066	7.784***
	Childhood experience of Abuse	.232***			
	Childhood experience of Support	-.100			
Proclivity to Abuse	Block 1: Demographics		.041	.041	1.488
	Age	-.155			
	Gender	.058			
	Marital Status	-.056			
	Education Level	.060			
	Household Size	.083			
	Parent's Age	.076			
	Block 2: Psychological Variables		.080	.040	2.974*
	Attitudes toward Elderly	-.147*			
	Modernity	.044			
	Filial Piety	.091			
	Block 3: Childhood Experience		.178	.098	12.187***
	Childhood experience of Abuse	.312***			
	Childhood experience of Support	-.047			
Proclivity to Support	Block 1: Demographics		.043	.043	To be continued 1.576
	Age	.093			
	Gender	-.033			
	Marital Status	-.021			
	Education Level	-.042			
	Household Size	-.047			
	Parent's Age	-.090			
	Block 2: Psychological Variables		.064	.021	1.520
	Attitudes toward Elderly	.096			
	Modernity	.046			
	Filial Piety	.004			
	Block 3: Childhood Experience		.227	.163	21.583***
	Childhood experience of Abuse	.027			
	Childhood experience of Support	.444***			

Note: *p<.05; **p<.01; ***p<.001

To determine whether childhood experience of abuse and support has any interaction effect on proclivity to abuse, additional regression analyses were conducted for al the above analyses with an interaction term of childhood experience of abuse times childhood experience of support entered into block 4. Results indicate that this interaction term was significant in predicting proclivity to support in the total sample (ΔR^2=.011) and was significant in predicting proclivity to physical abuse, social abuse, overall abuse as well as support in the college sample (ΔR^2 ranged from .026 to .064). There was no interaction between childhood experience of abuse and support in any of the above models in the community sample (p>.05).

Table 7a. Interaction Effect in the Hierarchical Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.049	.049	3.289**
	Age	-.123			
	Gender	.006			
	Marital Status	-.066			
	Education Level	.055			
	Household Size	.074			
	Parent's Age	.052			
	Block 2: Psychological Variables		.091	.042	5.885***
	Attitudes toward Elderly	-.154***			
	Modernity	-.084			
	Filial Piety	.014			
	Block 3: Childhood Experience		.202	.111	26.210***
	Childhood experience of Abuse	.264			
	Childhood experience of Support	-.010			
	Block 4: Interaction Term		.203	.001	.240
	Childhood experience of Abuse X Childhood experience of Support	.092			
Proclivity to Physical Abuse	Block 1: Demographics		.016	.016	1.062
	Age	-.043			
	Gender	-.012			
	Marital Status	.003			
	Education Level	.087			
	Household Size	.002			
	Parent's Age	-.080			
	Block 2: Psychological Variables		.065	.049	6.637***
	Attitudes toward Elderly	-.099*			
	Modernity	-.183***			
	Filial Piety	-.028			
	Block 3: Childhood Experience		.192	.127	29.596***
	Childhood experience of Abuse	.484**			
	Childhood experience of Support	.001			
	Block 4: Interaction Term		.194	.002	.813
	Childhood experience of Abuse X Childhood experience of Support	-.170			

To be continued

Table 7a. Interaction Effect in the Hierarchical Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Social Abuse	Block 1: Demographics		.017	017	1.072
	Age	-.049			
	Gender	-.023			
	Marital Status	-.006			
	Education Level	.080			
	Household Size	.004			
	Parent's Age	-.066			
	Block 2: Psychological Variables		.058	.041	5.529***
	Attitudes toward Elderly	-.097*			
	Modernity	-.149**			
	Filial Piety	.017			
	Block 3: Childhood Experience		.175	.117	26.667***
	Childhood experience of Abuse	.366*			
	Childhood experience of Support	-.075			
	Block 4: Interaction Term		.175	.000	.091
	Childhood experience of Abuse X Childhood experience of Support	-.058			
Proclivity to Abuse	Block 1: Demographics		.033	.033	2.160*
	Age	-.083			
	Gender	-.007			
	Marital Status	-.028			
	Education Level	.083			
	Household Size	.034			
	Parent's Age	-.031			
	Block 2: Psychological Variables		.088	.055	7.582***
	Attitudes toward Elderly	-.135**			
	Modernity	-.158**			
	Filial Piety	-.007			
	Block 3: Childhood Experience		.233	.145	35.693***
	Childhood experience of Abuse	.431**			
	Childhood experience of Support	-.014			
	Block 4: Interaction Term		.233	.000	.114
	Childhood experience of Abuse X Childhood experience of Support	-.062			
Proclivity to Support	Block 1: Demographics		.026	.026	1.716
	Age	-.003			
	Gender	-.038			
	Marital Status	-.043			
	Education Level	-.030			
	Household Size	-.001			
	Parent's Age	.053			
	Block 2: Psychological Variables		.059	.032	4.358**
	Attitudes toward Elderly	.102*			
	Modernity	-.050			
	Filial Piety	.037			
	Block 3: Childhood Experience		.181	.123	28.266***
	Childhood experience of Abuse	.395*			
	Childhood experience of Support	.659***			
	Block 4: Interaction Term		.192	.011	4.992*
	Childhood experience of Abuse X Childhood experience of Support	-.423*			

Note: *p<.05; **p<.01; ***p<.001

Table 7b. Interaction Effect in the Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.019	.019	.824
	Age	-.093			
	Gender	-.104			
	Household Size	.059			
	Parent's Age	-.016			
	Block 2: Psychological Variables		.125	.106	6.635**
	Attitudes toward Elderly	-.193*			
	Modernity	-.185*			
	Filial Piety	-.036			
	Block 3: Childhood Experience		.255	.130	14.091***
	Childhood experience of Abuse	-.720			
	Childhood experience of Support	.249			
	Block 4: Interaction Term		.256	.001	.294
	Childhood experience of Abuse X Childhood experience of Support	-.335			
Proclivity to Physical Abuse	Block 1: Demographics		.002	.002	.072
	Age	-.071			
	Gender	-.048			
	Household Size	-.058			
	Parent's Age	-.054			
	Block 2: Psychological Variables		.157	.155	10.044***
	Attitudes toward Elderly	-.100			
	Modernity	-.241**			
	Filial Piety	-.055			
	Block 3: Childhood Experience		.331	.175	21.155***
	Childhood experience of Abuse	2.712***			
	Childhood experience of Support	1.080***			
	Block 4: Interaction Term		.395	.064	16.893***
	Childhood experience of Abuse X Childhood experience of Support	-2.292***			
Proclivity to Social Abuse	Block 1: Demographics		.006	.006	.251
	Age	-.010			
	Gender	-.088			
	Household Size	-.107			
	Parent's Age	-.059			
	Block 2: Psychological Variables		.123	.117	7.280***
	Attitudes toward Elderly	-.122			
	Modernity	-.158*			
	Filial Piety	.037			
	Block 3: Childhood Experience		.298	.175	20.193***
	Childhood experience of Abuse	2.389***			
	Childhood experience of Support	.885**			
	Block 4: Interaction Term		.345	.047	11.639***
	Childhood experience of Abuse X Childhood experience of Support	-1.979***			

To be continued

Table 7b. Interaction Effect in the Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Abuse	Block 1: Demographics		.003	.003	.113
	Age	-.081			
	Gender	-.083			
	Household Size	-.022			
	Parent's Age	-.045			
	Block 2: Psychological Variables		.162	.160	10.412***
	Attitudes toward Elderly	-.155*			
	Modernity	-.235**			
	Filial Piety	-.040			
	Block 3: Childhood Experience		.354	.192	24.072***
	Childhood experience of Abuse	2.148***			
	Childhood experience of Support	.830**			
	Block 4: Interaction Term		.389	.035	9.129**
	Childhood experience of Abuse X Childhood experience of Support	-1.693**			
Proclivity to Support	Block 1: Demographics		.010	.010	.410
	Age	-.107			
	Gender	-.007			
	Household Size	.115			
	Parent's Age	.141			
	Block 2: Psychological Variables		.095	.085	5.140**
	Attitudes toward Elderly	.122			
	Modernity	-.167			
	Filial Piety	.070			
	Block 3: Childhood Experience		.190	.095	9.483***
	Childhood experience of Abuse	1.444*			
	Childhood experience of Support	1.075**			
	Block 4: Interaction Term		.216	.026	5.429*
	Childhood experience of Abuse X Childhood experience of Support	-1.479*			

Note: *p<.05; **p<.01; ***p<.001

Table 7c. Interaction Effect in the Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.050	050	1.855
	Age	-.167			
	Gender	.110			
	Marital Status	-.108			
	Education Level	.042			
	Household Size	.088			
	Parent's Age	.140			
	Block 2: Psychological Variables		.087	.036	2.742*
	Attitudes toward Elderly	-.142*			
	Modernity	.063			
	Filial Piety	.095			
	Block 3: Childhood Experience		.184	.097	12.201***
	Childhood experience of Abuse	.122			
	Childhood experience of Support	-.105			
	Block 4: Interaction Term		.188	.004	1.096
	Childhood experience of Abuse X Childhood experience of Support	.242			

To be continued

Table 7c. Interaction Effect in the Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Physical Abuse	Block 1: Demographics		.025	.025	.884
	Age	-.116			
	Gender	.019			
	Marital Status	-.005			
	Education Level	.065			
	Household Size	.055			
	Parent's Age	.011			
	Block 2: Psychological Variables		.054	.029	2.125
	Attitudes toward Elderly	-.125			
	Modernity	.026			
	Filial Piety	.071			
	Block 3: Childhood Experience		.127	.074	8.649***
	Childhood experience of Abuse	.247			
	Childhood experience of Support	-.098			
	Block 4: Interaction Term		.127	.000	.000
	Childhood experience of Abuse X Childhood experience of Support	.003			
Proclivity to Social Abuse	Block 1: Demographics		.032	.032	1.162
	Age	-.142			
	Gender	.022			
	Marital Status	-.019			
	Education Level	.065			
	Household Size	.078			
	Parent's Age	.034			
	Block 2: Psychological Variables		.059	.027	1.967
	Attitudes toward Elderly	-.113			
	Modernity	.034			
	Filial Piety	.097			
	Block 3: Childhood Experience		.125	.066	7.784***
	Childhood experience of Abuse	.140			
	Childhood experience of Support	-.167			
	Block 4: Interaction Term		.126	.001	.205
	Childhood experience of Abuse X Childhood experience of Support	.109			
Proclivity to Abuse	Block 1: Demographics		.041	.041	1.488
	Age	-.156			
	Gender	.061			
	Marital Status	-.052			
	Education Level	.063			
	Household Size	.079			
	Parent's Age	.072			
	Block 2: Psychological Variables		.080	.040	2.974*
	Attitudes toward Elderly	-.147*			
	Modernity	.047			
	Filial Piety	.094			
	Block 3: Childhood Experience		.178	.098	12.187***
	Childhood experience of Abuse	.209			
	Childhood experience of Support	-.122			
	Block 4: Interaction Term		.179	.001	.275
	Childhood experience of Abuse X Childhood experience of Support	.122			

To be continued

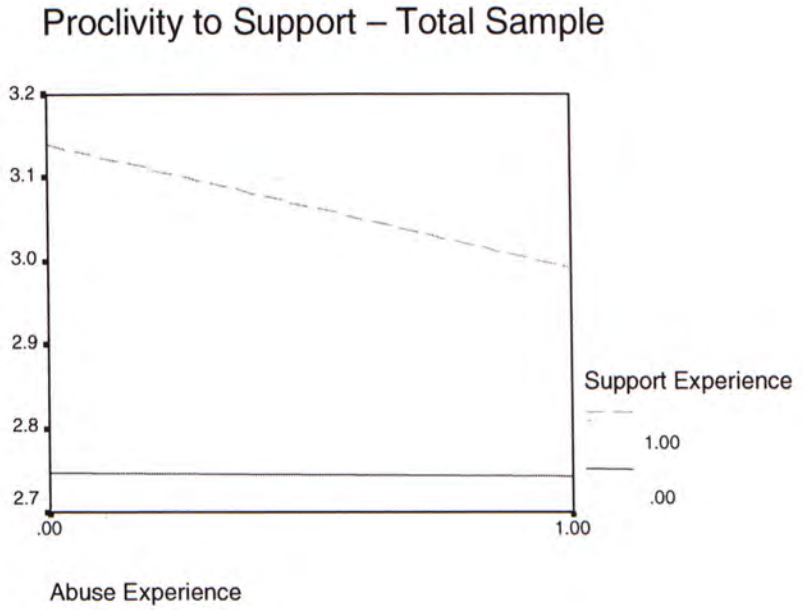
Table 7c. Interaction Effect in the Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Support	Block 1: Demographics		.043	.043	1.576
	Age	.098			
	Gender	-.042			
	Marital Status	-.032			
	Education Level	-.052			
	Household Size	-.033			
	Parent's Age	-.077			
	Block 2: Psychological Variables		.064	.021	1.520
	Attitudes toward Elderly	.096			
	Modernity	.036			
	Filial Piety	-.007			
	Block 3: Childhood Experience		.227	.163	21.583***
	Childhood experience of Abuse	.374			
	Childhood experience of Support	.697***			
	Block 4: Interaction Term		.239	.012	3.348
	Childhood experience of Abuse X Childhood experience of Support	-.409			

Note: *p<.05; **p<.01; ***p<.001

For the total sample, the childhood experience of abuse X childhood experience of support interaction effect showed that proclivity to support was highest among those with low level of experience of childhood abuse but a high level of childhood support, and was lowest among those with low level of experience of childhood abuse and support.

Figure 1.
Interaction Effect between Childhood Experience of Abuse and Support on Proclivity to Support – Total Sample



For the college sample, the childhood experience of abuse X childhood experience of support interaction effect showed that proclivity to physical abuse was highest among those with high level of experience of childhood abuse but a low level of childhood support, and was lowest among those with low level of experience of childhood abuse and support. The same interaction effect was observed on proclivity to social abuse as well as overall abuse.

Figure 2.
Interaction Effect between Childhood Experience of Abuse and Support on Proclivity to Physical Abuse – College Sample

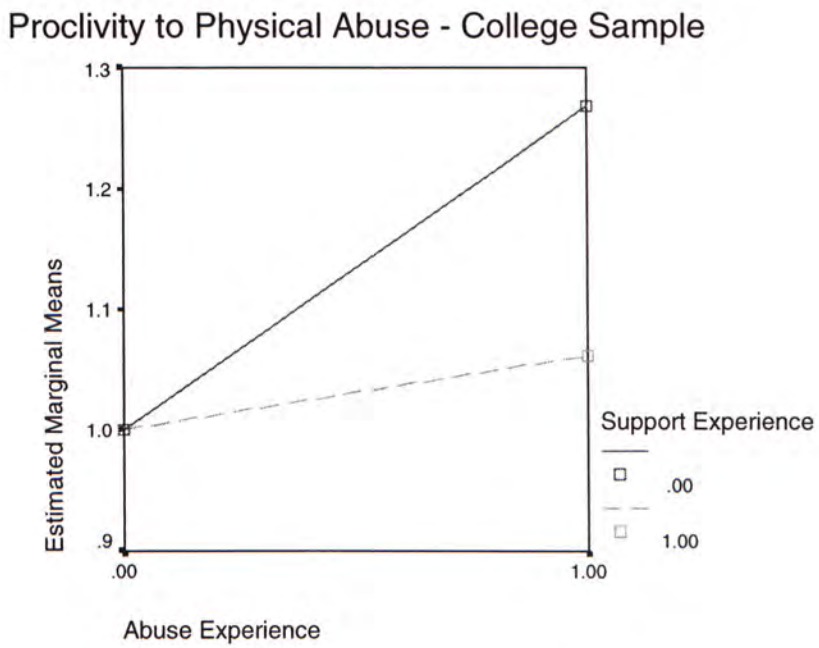


Figure 3.
Interaction Effect between Childhood Experience of Abuse and Support on Proclivity to Social Abuse – College Sample

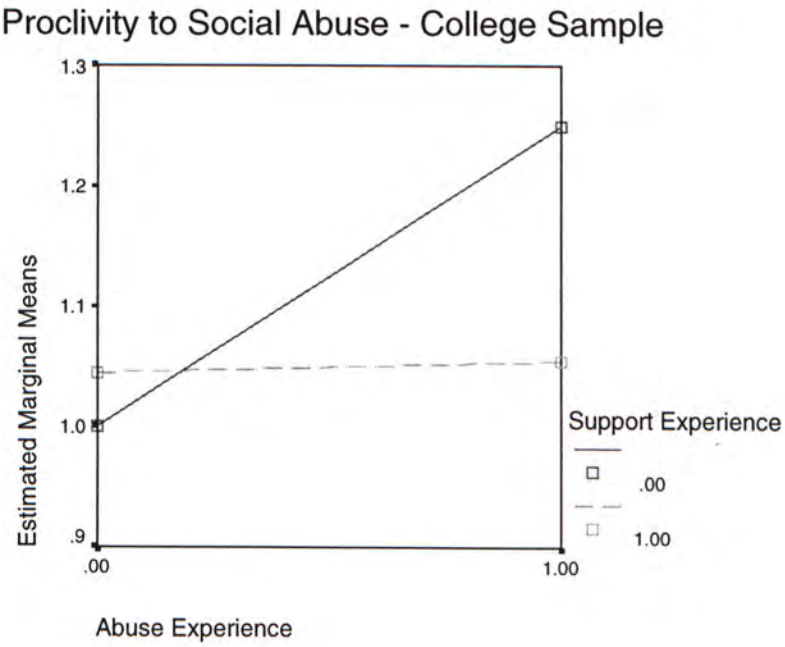
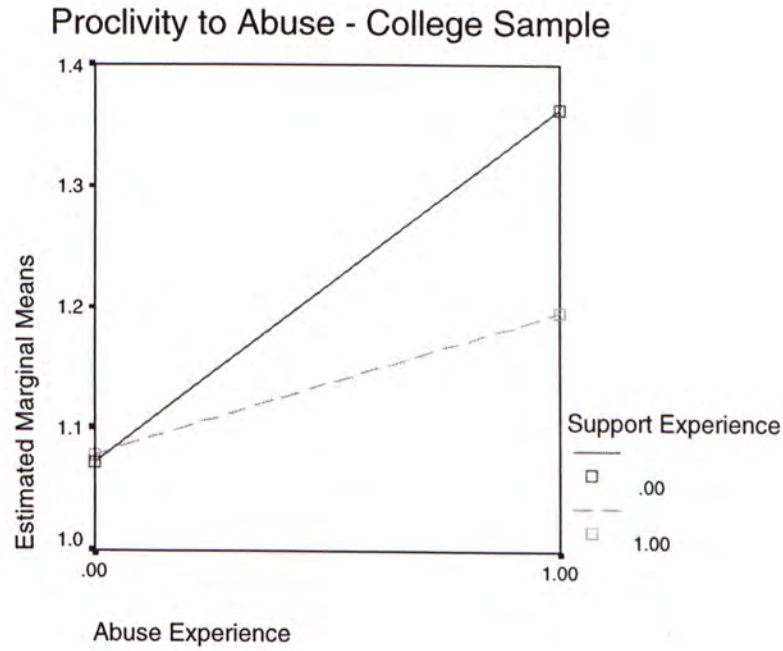
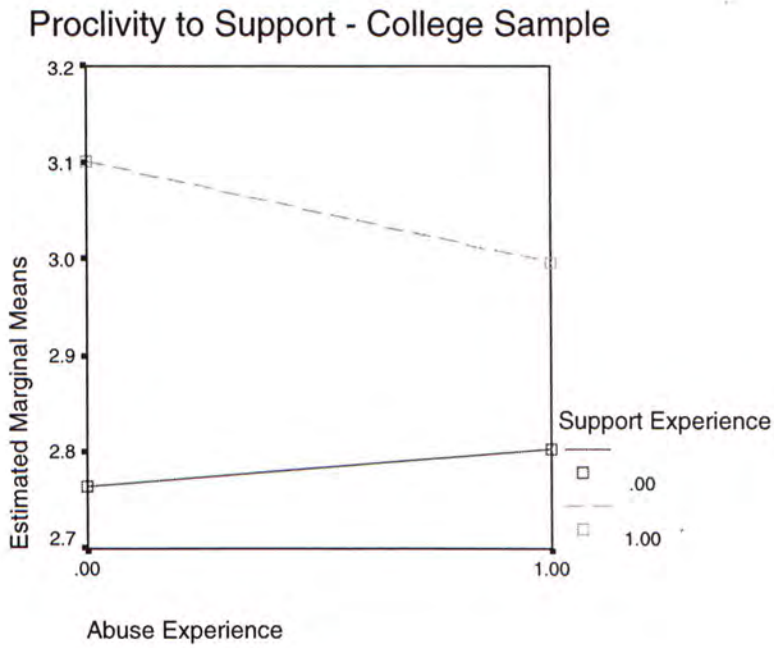


Figure 4.
Interaction Effect between Childhood Experience of Abuse and Support on Proclivity to Abuse – College Sample



In the college sample, The childhood experience of abuse X childhood experience of support interaction effect also showed that proclivity to support was highest among those with low level of experience of childhood abuse but a high level of childhood support, and was lowest among those with low level of experience of childhood abuse and support.

Figure 5.
Interaction Effect between Childhood Experience of Abuse and Support on Proclivity to Support – College Sample



Additional regression analyses were also conducted to determine the predictive values of specific forms of childhood experience of abuse in predicting their corresponding proclivity estimates. For subsequent analysis, participants' demographic variables were entered into Block 1, these included participants' age, gender, marital status, education level, household size, and their parents' age. Attitudinal variables including attitudes toward women, attitudes toward elderly and attitudes toward modernity were entered into Block 2. Participants' specific childhood

experience of abuse and support were entered into Block 3. Since the variables entered into block one and two were essentially the same as the previous regression analyses and were reported earlier in the paper, only selected results will be report in this section.

The regression model for proclivity to verbal abuse explained 16.9% of its total variance, participants' experience of verbal abuse and support entered in block three accounted for 7.8% of the variance (ΔR^2=.078 , F Change=17.691, p<.001). The beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly people and their high level of childhood experience of verbal abuse (β=-.150, .287 respectively).

For proclivity to physical abuse, the three blocks of predictive variables accounted for 21.8% of the variance. Participants' childhood experience of physical abuse and support entered into block three were found to have significant predictive values (ΔR^2=.153 , F Change=36.871, p<.001). The beta values of the final model showed that proclivity to physical abuse was best predicted by participants' negative attitudes toward elderly people and modernity as well as a high level of childhood experience of physical abuse (β=-.107, -.166, .376 respectively).

The three blocks of predicting variables explained about 25.5% of the total variance in proclivity to social abuse. The third block of childhood experience accounted for an additional 19.7% of the variance (ΔR^2=.197 , F Change=49.767, p<.001). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' negative attitudes toward elderly and modernity as well as a high level of childhood experience of social abuse (β=-.117, -.122 & .433 respectively).

Table 8a. Results of Hierarchical Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.049	.049	3.289**
	Age	-.157			
	Gender	.007			
	Marital Status	-.047			
	Education Level	.075			
	Household Size	.072			
	Parent's Age	.046			
	Block 2: Psychological Variables		.091	.042	5.885***
	Attitudes toward Elderly	-.150**			
	Modernity	-.104			
	Filial Piety	.008			
	Block 3: Childhood Experience		.169	.078	17.691***
	Childhood experience of Verbal Abuse	.287***			
	Childhood experience of Support	-.016			
Proclivity to Physical Abuse	Block 1: Demographics		.016	.016	1.062
	Age	-.019			
	Gender	-.018			
	Marital Status	.000			
	Education Level	.081			
	Household Size	-.003			
	Parent's Age	-.085			
	Block 2: Psychological Variables		.065	.049	6.637***
	Attitudes toward Elderly	-.107*			
	Modernity	-.166**			
	Filial Piety	-.022			
	Block 3: Childhood Experience		.218	.153	36.871***
	Childhood experience of Physical Abuse	.376***			
	Childhood experience of Support	-.072			
Proclivity to Social Abuse	Block 1: Demographics		.017	.017	1.072
	Age	.004			
	Gender	-.015			
	Marital Status	-.079			
	Education Level	.068			
	Household Size	.040			
	Parent's Age	-.057			
	Block 2: Psychological Variables		.058	.041	5.529***
	Attitudes toward Elderly	-.117*			
	Modernity	-.122*			
	Filial Piety	-.003			
	Block 3: Childhood Experience		.255	.197	49.767***
	Childhood experience of Social Abuse	.433***			
	Childhood experience of Support	-.054			

Note: *p<.05; **p<.01; ***p<.001

Additional analyses were also conducted for the college sample and the community sample. In the college sample, the three blocks of predictive variables accounted for 23.1% of the variance in proclivity to verbal abuse. Participants' childhood experience of verbal abuse and support entered into block three were found to have significant predictive values (ΔR^2=.106 , F Change=11.172, p<.001). The

beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly and modernity as well as a high level of childhood experience of verbal abuse (β=-.183, -.243, .344 respectively).

The three blocks of predictive variables accounted for 34.7% of the variance in proclivity to physical abuse. Participants' childhood experience of physical abuse and support entered into block three were found to have significant predictive values (ΔR^2=.191 , F Change=23.651, p<.001). The beta values of the final model showed that proclivity to physical abuse was best predicted by participants' negative attitudes toward modernity and a high level of childhood experience of physical abuse (β= -.274 &.449 respectively).

The three blocks of predicting variables explained about 37.8% of the total variance in proclivity to social abuse. The third block of childhood experience accounted for an additional 25.5% of the variance (ΔR^2=.255 , F Change=33.268, p<.001). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' negative attitudes toward modernity as well as a high level of childhood experience of social abuse (β=-.157 & .512 respectively).

Table 8b. Results of Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.019	.019	.824
	Age	-.101			
	Gender	-.105			
	Household Size	.037			
	Parent's Age	-.021			
	Block 2: Psychological Variables		.125	.106	6.635***
	Attitudes toward Elderly	-.183*			
	Modernity	-.243**			
	Filial Piety	-.066			
	Block 3: Childhood Experience		.231	.106	11.172***
	Childhood experience of Verbal Abuse	.344***			
	Childhood experience of Support	.049			

To be continued

Table 8b. Results of Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Physical Abuse	Block 1: Demographics		.002	.002	.072
	Age	-.093			
	Gender	-.076			
	Household Size	-.072			
	Parent's Age	-.079			
	Block 2: Psychological Variables		.157	.155	10.044***
	Attitudes toward Elderly	-.105			
	Modernity	-.274***			
	Filial Piety	-.059			
	Block 3: Childhood Experience		.347	.191	23.651***
	Childhood experience of Physical Abuse	.449***			
	Childhood experience of Support	-.053			
Proclivity to Social Abuse	Block 1: Demographics		.006	.006	.251
	Age	.024			
	Gender	-.035			
	Household Size	-.089			
	Parent's Age	-.045			
	Block 2: Psychological Variables		.123	.117	7.280***
	Attitudes toward Elderly	-.116			
	Modernity	-.157*			
	Filial Piety	.015			
	Block 3: Childhood Experience		.378	.255	33.268***
	Childhood experience of Social Abuse	.512***			
	Childhood experience of Support	-.080			

Note: *p<.05; **p<.01; ***p<.001

As for the community sample, the three blocks of predictive variables accounted for 15.3% of the variance in proclivity to verbal abuse. Participants' childhood experience of verbal abuse and support entered into block three were found to have significant predictive values (ΔR^2=.066 , F Change=8.020, p<.001). The beta values of the final model showed that proclivity to verbal abuse was best predicted by participants' negative attitudes toward elderly and a high level of childhood experience of verbal abuse (β=-.134 & .269 respectively).

The three blocks of predictive variables accounted for 15.3% of the variance in proclivity to physical abuse. Participants' childhood experience of physical abuse and support entered into block three were found to have significant predictive values (ΔR^2=.099 , F Change=12.036, p<.001). The beta values of the final model showed

that proclivity to physical abuse was best predicted by participants' childhood experience of physical abuse (β=.303).

The three blocks of predicting variables explained about 19.6% of the total variance in proclivity to social abuse. The third block of childhood experience accounted for 13.7% of the variance (ΔR^2=.137 , F Change=17.504, p<.001). The beta values of the final model showed that proclivity to social abuse was best predicted by participants' childhood experience of social abuse (β=.365).

Table 8c. Results of Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.050	.050	1.855
	Age	-.198			
	Gender	.104			
	Marital Status	-.092			
	Education Level	.053			
	Household Size	.094			
	Parent's Age	.144			
	Block 2: Psychological Variables		.087	.036	2.742*
	Attitudes toward Elderly	-.134*			
	Modernity	.060			
	Filial Piety	.099			
	Block 3: Childhood Experience		.153	.066	8.020***
	Childhood experience of Verbal Abuse	.269***			
	Childhood experience of Support	-.020			
Proclivity to Physical Abuse	Block 1: Demographics		.025	.025	.884
	Age	-.097			
	Gender	.018			
	Marital Status	-.014			
	Education Level	.057			
	Household Size	.051			
	Parent's Age	.014			
	Block 2: Psychological Variables		.054	.029	2.125
	Attitudes toward Elderly	-.133			
	Modernity	.029			
	Filial Piety	.067			
	Block 3: Childhood Experience		.153	.099	12.036***
	Childhood experience of Physical Abuse	.303***			
	Childhood experience of Support	-.060			

To be continued

Table 8c. Results of Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Social Abuse	Block 1: Demographics		.032	.032	1.162
	Age	-.089			
	Gender	.002			
	Marital Status	-.084			
	Education Level	.043			
	Household Size	.115			
	Parent's Age	.031			
	Block 2: Psychological Variables		.059	.027	1.967
	Attitudes toward Elderly	-.129			
	Modernity	.042			
	Filial Piety	.065			
	Block 3: Childhood Experience		.196	.137	17.504***
	Childhood experience of Social Abuse	.365***			
	Childhood experience of Support	-.038			

Note: *p<.05; **p<.01; ***p<.001

To determine whether childhood experience of specific form of abuse and support has any interaction effect on proclivity to parallel form of abuse, additional regression analyses were conducted for al the above analyses with an interaction term of childhood experience of (verbal / physical / social) abuse times childhood experience of support entered into block 4. Results indicate that this interaction term was significant in predicting proclivity to social abuse in the total sample, and was significant in predicting proclivity to physical abuse and social abuse in the college sample. The interaction term is also significant in predicting proclivity to social abuse in the community sample.

Table 9a. Interaction Effect in Hierarchial Regression Analysis

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.049	.049	3.289**
	Age	-.157			
	Gender	.004			
	Marital Status	-.049			
	Education Level	.071			
	Household Size	.077			
	Parent's Age	.054			
	Block 2: Psychological Variables		.091	.042	5.885***
	Attitudes toward Elderly	-.147**			
	Modernity	-.112			
	Filial Piety	.003			
	Block 3: Childhood Experience		.169	.078	17.691***
	Childhood experience of Verbal Abuse	.458**			
	Childhood experience of Support	.080			
	Block 4: Interaction Term		.172	.003	1.280
	Childhood experience of Verbal Abuse X Childhood experience of Support	-.197			
Proclivity to Physical Abuse	Block 1: Demographics		.016	.016	1.062
	Age	-.019			
	Gender	-.017			
	Marital Status	.003			
	Education Level	.082			
	Household Size	-.006			
	Parent's Age	-.089			
	Block 2: Psychological Variables		.065	.049	6.637***
	Attitudes toward Elderly	-.107*			
	Modernity	-.164**			
	Filial Piety	-.020			
	Block 3: Childhood Experience		.218	.153	36.871***
	Childhood experience of Verbal Abuse	.270			
	Childhood experience of Support	-.137			
	Block 4: Interaction Term		.219	.001	.245
	Childhood experience of Physical Abuse X Childhood experience of Support	.114			
Proclivity to Social Abuse	Block 1: Demographics		.017	.017	1.072
	Age	.015			
	Gender	-.007			
	Marital Status	-.052			
	Education Level	.092			
	Household Size	.026			
	Parent's Age	-.072			
	Block 2: Psychological Variables		.058	.041	5.529***
	Attitudes toward Elderly	-.110*			
	Modernity	-.117*			
	Filial Piety	.009			
	Block 3: Childhood Experience		.255	.197	49.767***
	Childhood experience of Social Abuse	-.474*			
	Childhood experience of Support	-.545***			
	Block 4: Interaction Term		.285	.030	15.909***
	Childhood experience of Verbal Abuse X Childhood experience of Support	.938***			

Note: *p<.05; **p<.01; ***p<.001

Table 9b. Interaction Effect in Hierarchical Regression Analysis - College Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.019	.019	.824
	Age	-.097			
	Gender	-.104			
	Household Size	.038			
	Parent's Age	-.019			
	Block 2: Psychological Variables		.125	.106	6.635***
	Attitudes toward Elderly	-.191*			
	Modernity	-.233*			
	Filial Piety	-.062			
	Block 3: Childhood Experience		.231	.106	11.172***
	Childhood experience of Verbal Abuse	1.015			
	Childhood experience of Support	.340			
	Block 4: Interaction Term		.237	.005	1.092
	Childhood experience of Verbal Abuse X Childhood experience of Support	-.693			
Proclivity to Physical Abuse	Block 1: Demographics		.002	.002	.072
	Age	-.073			
	Gender	-.069			
	Household Size	-.038			
	Parent's Age	-.063			
	Block 2: Psychological Variables		.157	.155	10.044***
	Attitudes toward Elderly	-.099			
	Modernity	-.245**			
	Filial Piety	-.54			
	Block 3: Childhood Experience		.347	.191	23.651***
	Childhood experience of Physical Abuse	2.179***			
	Childhood experience of Support	.720**			
	Block 4: Interaction Term		.391	.044	11.515***
	Childhood experience of Physical Abuse X Childhood experience of Support	-1.711***			
Proclivity to Social Abuse	Block 1: Demographics		.006	.006	.251
	Age	.017			
	Gender	-.011			
	Household Size	-.096			
	Parent's Age	-.037			
	Block 2: Psychological Variables		.123	.117	7.280***
	Attitudes toward Elderly	-.110			
	Modernity	-.127			
	Filial Piety	.018			
	Block 3: Childhood Experience		.378	.255	33.268***
	Childhood experience of Social Abuse	1.919***			
	Childhood experience of Support	.471*			
	Block 4: Interaction Term		.402	.024	6.341*
	Childhood experience of Social Abuse X Childhood experience of Support	-1.386*			

Note: *p<.05; **p<.01; ***p<.001

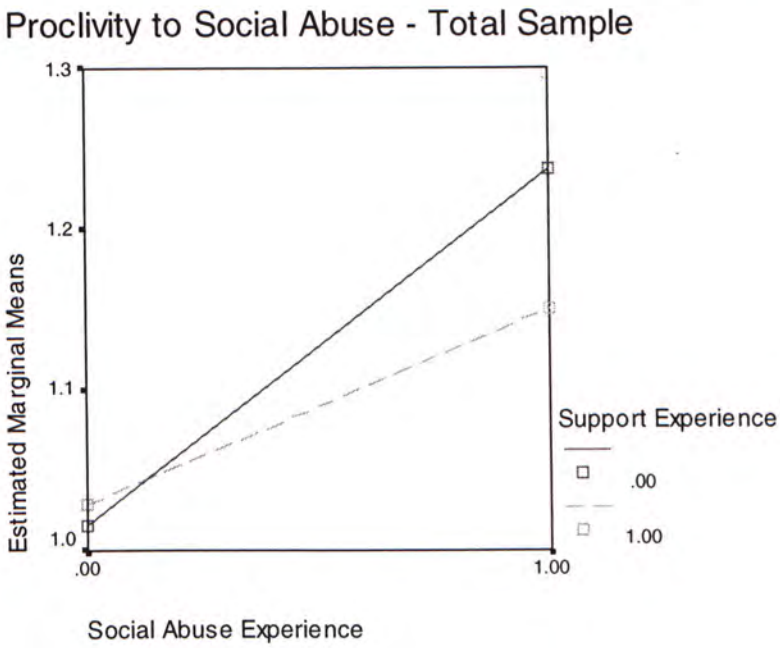
Table 9c. Interaction Effect in Hierarchical Regression Analysis - Community Sample

		Standard Coefficient Beta Value	R^2	Δ in R^2	F Change
Proclivity to Verbal Abuse	Block 1: Demographics		.050	.050	1.855
	Age	-.198			
	Gender	.103			
	Marital Status	-.092			
	Education Level	.052			
	Household Size	.096			
	Parent's Age	.146			
	Block 2: Psychological Variables		.087	.036	2.742*
	Attitudes toward Elderly	-.134*			
	Modernity	.058			
	Filial Piety	.098			
	Block 3: Childhood Experience		.153	.066	8.020***
	Childhood experience of Verbal Abuse	.307			
	Childhood experience of Support	.002			
	Block 4: Interaction Term		.153	.000	.037
	Childhood experience of Verbal Abuse X Childhood experience of Support	-.044			
Proclivity to Physical Abuse	Block 1: Demographics		.025	.025	.884
	Age	-.096			
	Gender	.024			
	Marital Status	-.004			
	Education Level	.062			
	Household Size	.042			
	Parent's Age	.002			
	Block 2: Psychological Variables		.054	.029	2.125
	Attitudes toward Elderly	-.133*			
	Modernity	.031			
	Filial Piety	.073			
	Block 3: Childhood Experience		.153	.099	12.036***
	Childhood experience of Physical Abuse	-.035			
	Childhood experience of Support	-.287			
	Block 4: Interaction Term		.160	.007	1.684
	Childhood experience of Physical Abuse X Childhood experience of Support	.372			
Proclivity to Social Abuse	Block 1: Demographics		.032	.032	1.162
	Age	-.060			
	Gender	.028			
	Marital Status	-.052			
	Education Level	.088			
	Household Size	.090			
	Parent's Age	-.009			
	Block 2: Psychological Variables		.059	.027	1.967
	Attitudes toward Elderly	-.112			
	Modernity	.027			
	Filial Piety	.065			
	Block 3: Childhood Experience		.196	.137	17.504***
	Childhood experience of Social Abuse	-.910**			
	Childhood experience of Support	-.787***			
	Block 4: Interaction Term		.266	.069	19.277***
	Childhood experience of Social Abuse X Childhood experience of Support	1.331***			

Note: *p<.05; **p<.01; ***p<.001

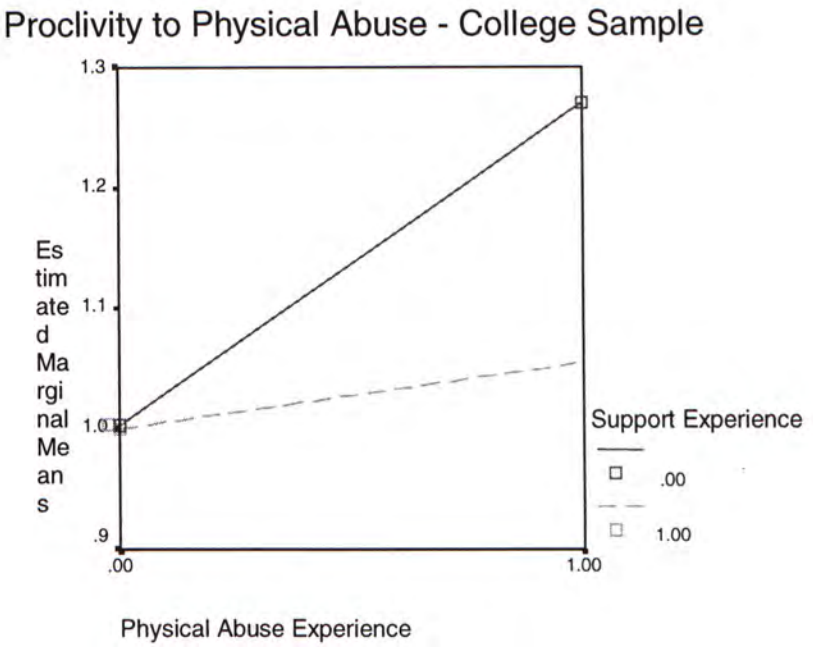
For the total sample, the childhood experience of social abuse X childhood experience of support interaction effect showed that proclivity to social abuse was highest among those with high level of experience of childhood abuse but a low level of childhood support, and was lowest among those with low level of experience of childhood abuse and support.

Figure 6.
Interaction Effect between Childhood Experience of Social Abuse and Support on Proclivity to Social Abuse – Total Sample



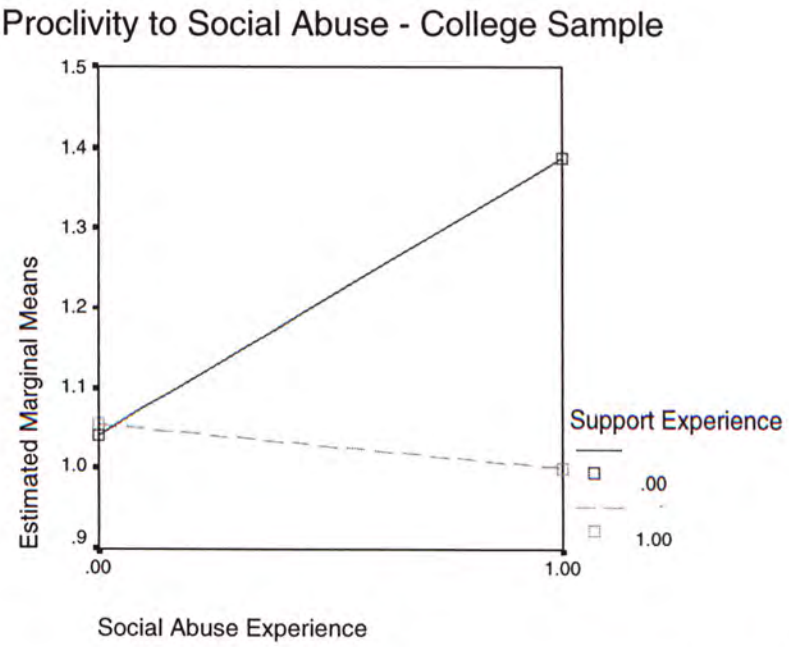
For the college sample, the childhood experience of physical abuse X childhood experience of support interaction effect showed that proclivity to physical abuse was highest among those with high level of experience of childhood abuse but a low level of childhood support, and was lowest among those with low level of experience of childhood abuse but a low level of childhood support.

Figure 7.
Interaction Effect between Childhood Experience of Physical Abuse and Support on Proclivity to Physical Abuse - College Sample



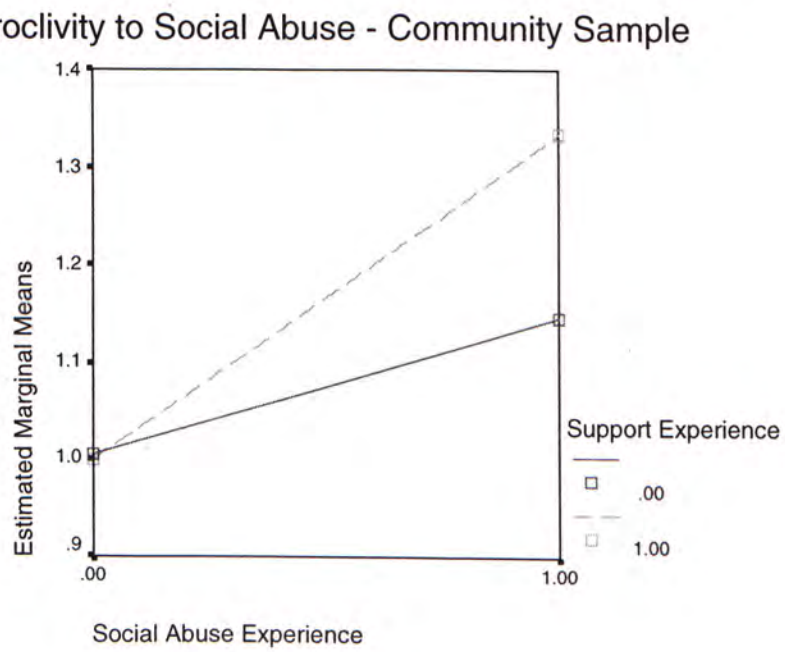
For the college sample, the childhood experience of social abuse X childhood experience of support interaction effect showed that proclivity to social abuse was highest among those with high level of experience of childhood abuse but a low level of childhood support, and was lowest among those with high level of experience of childhood abuse but a low level of childhood support.

Figure 8.
Interaction Effect between Childhood Experience of Social Abuse and Support on Proclivity to Social Abuse - College Sample



For the community sample, the childhood experience of social abuse X childhood experience of support interaction effect showed that proclivity to social abuse was highest among those with high level of experience of childhood abuse and a high level of childhood support and was lowest among those with low level of experience of childhood abuse but a low level of childhood support.

Figure 9.
Interaction Effect between Childhood Experience of Social Abuse and Support on Proclivity to Social Abuse – Community Sample



CHAPTER 4: DISCUSSIONS

The present study attempts to establish estimates of proclivity to elder abuse in Hong Kong. This study also aims to unearth some of the risk factors for elder abuse in the potential abuser's profile and to validate the hypothesis of the intergenerational transmission of violence and the ecological theory. It was hypothesized that participants' childhood experience of violence would have an impact on their current proclivity estimates in general and that particular forms of childhood experience of violence would predict proclivity to parallel forms of abuse. It was also hypothesized that participants holding more negative attitudes toward elderly and more conservative views on modernity and filial piety would endorse a higher level of proclivity to abuse.

Proclivity Estimates

More than 60% of the participants admitted that they would verbally abuse an elder relative if there were no social constrains or legal responsibility. Under the above conditions, another 8% of the participants admitted they would display physical abuse, and 5.4% social abuse. Proclivity estimates from the present study also displayed a striking resemblance to the actual instances of abuse reported by elder persons where verbal abuse is the most prevalent form of abuse (20.8%) with physical and social abuse being relatively less prevalent (2.0% & 3.9% respectively) (Yan & Tang, 2001). This is true for studies conducted in local setting as well as study from the west. For instance, a prevalence study in Canada found a prevalence rate 1.1% for verbal abuse, 0.5% for physical abuse, 2.5% for material abuse, and 0.4% for neglect (Podnieks, 1990). And in Britain, a prevalence of 5.4% for verbal abuse, 1.5% for physical abuse and 1.5% for financial abuse was reported (Bennett & Kingston, 1993).

The fact that verbal abuse consistently emerged as the most prevalent form of abuse in both proclivity and actual estimates can be explained by the relatively lesser sanction placed on verbal aggression, both socially and legally, as compared to other forms of abuse. And yet, the negative impact of verbal abuse on its victim should not be overlooked. Although verbal abuse does not cause any obvious physical or bodily injury in the victims, the intense fear, guilt, and damage to self esteem result from verbal abuse may have a more lasting and damaging impact on the victims than physical abuse (Goldger & Tomlanovich, 1984; Tang, 1997).

Most of the studies on proclivity have been conducted on proclivity to rape. There were yet no precise estimates on the how an individual's rape proclivity approximate his actual rape behavior. Yet, previous studies on rape proclivity indicate that individuals' rape proclivity was highly correlated with their previous experience of sexual aggression ranging from forced kissing to attempt and actual rape (Malamuth, 1989). This argues for proclivity as a valid measure of prevalence of elder abuse and suggests that participants who endorse a high level of proclivity to elder abuse may actually be abusers themselves.

The Hypothesis of Intergenerational Transmission of Violence

Findings from the present study provided strong evidence for the hypothesis of intergeneration transmission of violence, which states that behavior can be acquired through observing others. It was suggested that domestic violence can be learned and passed from one generation to the next (Quinn & Tomita, 1986). Studies indicate that individuals who experienced violence as children were more likely to make hostile attributions (Fraser, 1996) and to approve violence as a mean to punish others' wrongdoing (Owen & Straus, 1975). The variable has been significant predictors for wife and child abuse. There are evidences that individuals who experienced physical

violence as children or saw their parents fighting in their childhood are more likely to engage in subsequent violence towards their spouses and children (Doumas et al., 1994; Hotaling and Sugarman, 1986; Simons et al., 1991, Straus, 1983; Straus et al., 1980; Zaidi et al., 1989). The hypothesis was also predictive of elder abuse. Study suggests that children who have poor relationship with parent since childhood are prone to be abusive toward their elderly parent (Homer, 1984).

Results from the present study indicate that participants' childhood experience of abuse was positively related to their proclivity to various forms of abuse, thus implying that participants who experienced violence as a child also tended to endorse higher level of proclivity to abuse. Participants' childhood experience of abuse was predictive of their current endorsement of proclivity estimates to all forms of abuse and has proved itself the strongest predictor among all variables in the regression model. Not only were participants' childhood experience of aggression in general predictive of their current proclivity to abuse, participants' childhood experience of verbal, physical, and social abuse were also predictive of their proclivity to these specific forms of abuse.

Although proclivity to abuse in itself does not equal abuse, the present findings with proclivity to abuse confirms the finding from the previous studies that elder abuse, just as other forms of intrafamilial violence, can be learnt and transmitted from one generation to the next. These results can certainly have important implications in preventing and intervening elder abuse. Findings from the present study suggest violence can be learned and transmitted from one generation to the next, and so is the case for support. Participants who experienced high level of support in their childhood also tended to express higher level of proclivity to support.

Participants' childhood experience of support was the strongest predictor for their proclivity to support.

The Ecological Theory

The present findings in general supported the ecological theory. It was found that participants with more negative attitudes toward elderly also tended to report higher level of proclivity to abuse. Participants' negative attitudes toward elderly also emerged as the second most salient factor in predicting proclivity to abuse among all other psychological variables. This is in line with the previous findings where negative attitudes toward women predict violence against women (Driescher & Lange, 1999). Also, previous studies on attitudes toward elderly also reveals that compared to elderly people who are age cohorts of their grandparents, college students tended to told more negative attitudes toward elderly people (Yeung et al., 2002). In particular, younger generation tends to view past experience of elderly people as boring rather than of value and perceive the elderly as having nothing to do and always meddling in other people's affairs. It is possible that economic hardship has contributed to this negative attitude toward elderly people. In spite of the pension scheme existing in Hong Kong, it only has limited coverage and majority of the elderly people have to rely on their meager saving or help form their offspring (Chow & Chi, 1997). In face of the economic hardship in recent years couple with the increasing life expenses to support an elder person, elderly people may be considered a burden to families and thus cultivate more negative attitudes toward elderly people.

Participants' negative attitudes toward modernity was one of the most salient predictors for their proclivity to physical abuse, social abuse, as well as overall abuse. Participants who were more rigid in their adoption of traditional Chinese beliefs and values tend to express higher level of proclivity to physical abuse, social abuse, as

well as overall abuse. Being a relatively broad construct measuring participants' general adherence to Chinese values, this suggests that change in participants' world view may be a more predictive factor for proclivity to abuse.

Contrary to our prediction, filial piety was not related to proclivity to any form of abuse. It is possible that since the present study focuses on proclivity towards an elder relative, and this elder relative is not confined to the participant's parent, filial piety, being a construct specific to parent-child relationship, may not have any predictive power in predicting proclivity to abuse. This may also be related to the fact that younger people are becoming less concerned about filial responsibility. In fact, there's evidence that filial piety is on its decline. A recent local study shows that compared to elderly people who are age cohorts of their grandparents, college students demonstrate a significant lower level of filial piety (Yeung et al., 2002).

Participants' Demographics

Findings from the present study indicate that participants' demographics were also significant in predicting their proclivity to verbal abuse as well as overall abuse. Correlation analyses indicate that participants' age, marital status, education level, household size, as well as their parents' age were weakly related to their proclivity to abuse.

In general, younger participants tended to endorse higher level of proclivity estimates. Age was strong correlated with proclivity to abuse and yet and effect of age subsided when the psychological variables were entered into the regression model. The fact that age was strongly correlated with participants' marital status, education level, and attitudes toward modernity may shed light on this question. It is possible that while younger participants tended to remain single, attained higher level of

education and have more rigid attitudes toward modernity, the predictive power of age has collapsed into other variables.

A strong negative relationship was also observed between marital status and proclivity to abuse, indicating individuals who remain single tended to endorse higher level of proclivity. It is possible that individuals who remain single tended to be younger and more independent, and value personal development over family ties. Consequently, one may make a case that this variable amounts to the participants' social values rather then their demographic characteristics. This may also explain the positive relationship observed between education level and proclivity estimates, indicating participants who received higher level of education tended to admit to higher level of proclivity. While previous studies indicate that positive self-esteem buffers anxiety in the face of threats (Greenberg et al., 1997), and that achievement feeds self esteem (Seligman, 1994; Damon, 1995), it is possible that participants who received higher level of education tended to have more positive self esteem and thus can provide more accurate answers to the potentially threatening questions (proclivity to elder abuse) in the present study. This finding is also in line with the previous findings which indicate that probationers convicted of domestic violence were more educated as compared to other violent probationers (Olson, & Stalans, 2001).

Results from the preset study also suggest that larger household size was related to higher level of proclivity to verbal abuse. It is possible that a lack of personal space in the family gives rise to higher level of interpersonal conflicts and thus heightens participants' endorsement of proclivity to verbal abuse. In fact, previous studies have documented that decreased living space is related to aggression (Heacock, 1976). Other studies suggest that individuals, cohabiting with many others, were more likely to suffer from interpersonal hostility and suspiciousness (Hwang,

1979) and that angered individuals prefer greater interpersonal space between themselves and others (O' Neal, Brumault, Marquis, & Carifio, 1987).

The fact that participants' parents' age was negatively correlated with proclivity to various forms of abuse suggest that participants with younger parents tend to admit to higher level of proclivity to abuse. The is in line with the previous findings which suggest that increasing age decreased an individual's likelihood of being identified as a victim of physical violence (Rudman & Davey, 2000). However, there's a strong positive correlation between participants' age and that of their parents, which may contaminate the effects of parents' age, consequently it's unclear in the present stage whether the effect on proclivity to abuse was contributed by participants' age or that of their parents.

The Role of Support

Findings from the present study indicate that there is an interaction effect between participants' childhood experience of abuse and support in predicting their endorsement proclivity to abuse. Specifically, proclivity estimates were highest when participants have high level of childhood experience of abuse but a low level of childhood experience of support. While low level of childhood experience of support amplified the effects of childhood experience of abuse in increasing proclivity to abuse, high level of support did not appear to have any mitigating effect in decreasing proclivity to abuse. In fact, proclivity to abuse were lowest when participants experience low level of childhood abuse and low level of childhood support. The fact that both experience of abuse and support were at the low end may indicate that participants who endorsed low level of proclivity to abuse have emotionally or physically distant parents and thus did not experience much abuse nor support in their childhood.

This interaction effect is particularly prominent in the college sample. This is possibly due to the fact that the college sample is relatively homogenous and have similar background. Also, while the present study required participants to provide reports on their childhood experience, memory decay may be a problem for participants from the community sample who were considerably older and more distant from their childhood. Consequently, the interaction effect is particularly outstanding in the college sample.

Limitations

The present study has established preliminary estimates for proclivity to elder abuse in Hong Kong and provided important information on the relative contribution of the various in the development of aggression towards elder persons. However, a number of limitations in the present study may call for special caution in generalizing its findings. First of all, participants in the present study were recruited using the convenient sample, it remains unclear whether findings from the present study can be generalized to the population. Before taking any of these estimates into account, it should also be noted that these proclivity estimates might still underestimate the actual proclivity rate. A major concern in studies using proclivity estimates is the danger of respondents making socially desirable responding, the problem is particularly serious in studies relying on self-report measures, as is in the present study. Social desirability may post a serious threat when participants under-report their proclivity rates in order to maintain a more positive self-image. Also, the present study did not control the characteristics of the target elder person, while past studies indicates that elderly people who are female, disabled and have cognitive impairment tend to experience higher level of abuse, it is possible that proclivity estimates vary depending on the characteristics of the target elder person. Nonetheless, the

relationship between proclivity estimates and actual behavior of elder abuse remains unclear. Though past research indicates that proclivity to rape is highly correlated with participants' past experience of sexual aggression, it remains uncertain about the extend to which proclivity estimates represent the actual behavior. Moreover, participants' childhood experience of abuse and support was based entirely on retrospective reports and may be contaminated by their recall bias. Also, the present study focused on the behavioral indicator of elder abuse and did not examine the contextual factors such as the antecedents and consequences of the abusive behavior, which might have important implication in the study of elder abuse.

Implication for further studies

The present study has provided important information on estimates of proclivity to elder abuse and has identified various related risk factors. Still, findings from the present study is far from flawless and there are several areas that further studies should be addressed. First of all, the cross sectional nature of the present study provided information only on the relationship among variables and no casual effects can be established. Further studies should include longitudinal studies to ascertain the role of various risk factors explored. Secondly, the problem of social desirability remained a concern for studies on proclivity estimates, and further studies should employ more subtle and less obtrusive measures or include measures of social desirability in order to adjust this factor. Characteristics of the elder person, which may have important implication to proclivity estimates should also be controlled. Further studies should also attempt to establish relatedness between proclivity estimates and the actual behaviors of elder abuse such that more explicit inference can be deduced.

Implication on prevention and intervention

Providing knowledge about the adversiveness of intrafamilial violence and the psychological impact on its victims is essentially the first step to prevent elder abuse. Public education programs regarding the increasing vulnerability of elderly Chinese to family violence should thus be launched to increase public awareness and to reduce stigma of elderly people so as to make possible early detection, prompt reporting, and timely intervention. Understanding that different types of intrafamilial violence are actually close intertwined, effort to prevent and intervene elder abuse should also look into intrafamilial violence as a whole. Resources should be allocated to expand existing social services and develop new programs to increase public awareness on the damaging effect of intrafamilial violence and provide easily accessible assistance to families in need.

Nonetheless, results from the present study also cast a promising picture to the future of the prevention of elder abuse in Hong Kong. While modernity is negatively associated with proclivity to abuse, we may notice a decrease in prevalence of elder abuse as Hong Kong is moving to a more modern society.

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